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LEGAL SANCTIONS AND DETERRENCE



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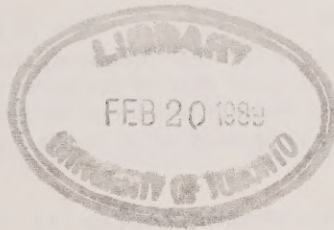


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LEGAL SANCTIONS AND DETERRENCE



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1988

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INTRODUCTION

Brody (1975:9) captures the essence of our view of the deterrence problem:

Confusion about the separate effects of deterrence and reformative measures means that it cannot easily be said of someone who has given up crime that it is because he has become afraid of the consequences or that it is because he has become a better person. To avoid having to make this difficult decision, the term 'correction' is frequently used to refer to change which has taken place for either reason. Nevertheless, in practice, the question has implications which are more than merely academic. Almost all developments in the disposal and treatment of offenders have necessarily been introduced not by those who dispense sentences but at the instigation of reformers and administrators, who have mostly been influenced by the conviction that reform can be achieved and is a more desirable goal than any other, despite the lack of any substantial evidence for this belief and the fact that those who pass sentence do not necessarily share the same view. Evaluative research has similarly been led into concentrating its skills and resources largely on to comparisons between traditional and therapeutic sentences. The results have on the whole, and certainly up to very recently, failed to show any substantial or consistent differences. This has been taken by some critics...to indicate that reformative ambitions have been unfounded, unrealistic and ineffective and to call for a return to more old-fashioned ideals, including more emphasis on the deterrent value of sentences. It may, of course, be true that reformative innovations have little corrective value (although it has not been conclusively disproven), but it is also true that the relative deterrent value of different sentences is so far equally dubious.

It seems reasonable to assume that almost all adults in Canada and the United States have, at some time, been deterred from a criminal offense by considering the possible legal consequences. However, this common sense assumption, or even ubiquitous individual personal experience, may not constitute a sufficient evidential basis for the justification of legal

sanctions in terms of their intended deterrent effects. The question is whether the deterrent effects result in the suppression and reduction of more crime than, a) the consequences flowing from other kinds of legal sanctions, not justified by deterrence outcomes, or and/or b) any other factors other than legal sanctions.

Answers to these two questions requires that the evidence show that the ratios, frequencies, percentages, degrees and or extent of suppressed or reduced crimes for deterrence oriented legal sanctions is equal to or more than other legal sanctions. This review of deterrence research argues that, with few and rare instances, such as anecdotal evidence about some police strikes, such evidence is not yet available.

Drawing upon some nine bodies of research addressing the deterrence question, we contend that there is little or no evidence to sustain an empirically justified belief in the deterrent efficacy of legal sanctions. However, we go beyond a review of this literature and set out several arguments which document the mitigation of deterrent oriented legal sanctions.

Our thesis, however, is not confined to deterrence oriented legal sanctions. We suggest that many factors mitigate the effects of any legal sanctions intend to produce specific, uniform outcomes.

What follows, in Part A, is an overview of the many meanings of the word deterrence. The ambiguity generated by the

proliferation of meanings escalates the possibility of believing in deterrence while reducing the likelihood of systematic inquiry leading to definitive conclusions about deterrence effects.

Part B of the review overviews the nine bodies of literature and describes some of the better known studies. The array of modes of researching deterrence and the several conclusions drawn by reviews and researchers illustrates the confusion surrounding deterrence research.

Part C sets out some of the major conceptual and methodological inadequacies in the deterrence research. These limitations are, in our views, of sufficient importance to lend credence to our conclusions, that deterrence as an outcome of legal sanctions, has neither been confirmed nor refuted.

Part D sets out the review of studies that tend to document variables and factors that mitigate legal sanctions of any kind.

These studies challenge the reformers' belief that intentions can be manifest in specific, uniform consequences. Our view applies equally to liberal and conservative reforms, as well as to all legal sanction philosophies.

PART A

THE MANY MEANINGS OF THE TERM DETERRENCE

Introduction

The word "deterrence" has been used at least since the early sixteenth century. Originally derived from the Latin verb deterre, meaning "to frighten away or from," the word has not undergone much etymological change.¹ However, the etymological meaning of the word "deter" does not meet the requirements of research or systematic inquiry. This section reviews some of the ways the word deterrence is used and points to some of the attempts to derive a stipulative definition in order to permit the researching of deterrence arguments. We suggest that the many meanings of this term may preclude any consensus and definitive conclusions about legal sanctions justified by their possible deterrent consequences.

GENERAL DETERRENCE: THE INITIAL FORMULATION

Initial attempts to formalize the idea of deterrence were made by Cesare Beccaria (1738-1794) and Jeremy Bentham (1748-1832). Bentham's study, The Rationale of Punishment (1811), is an elaboration of Beccaria's An Essay on Crime and Punishment (1764). Both works argue that the major purpose for the application of legal sanctions is to achieve general deterrence, that is, to discourage² potential offenders from becoming actual offenders (Monachesi, 1955; Mazoni, 1964; Rothman, 1971:60; Bailey, 1971:9).³

For Beccaria and Bentham, general deterrence occurs when legal consequences are attached to criminal acts and awarded to offenders so that others will rationally weigh the advantages of criminal behaviour and choose acts resulting in the least pain. These students of deterrence believe that the legal consequences should result in "just enough" pain to tip decisions in favour of legal behaviour.

Beccaria and Bentham argue that general deterrence is most likely if legal responses are certain to occur, that is, inevitable when someone commits a crime; if they are swift, in that they are quickly imposed and carried out; and if they are continuous, or applied frequently and regularly. These philosophers believe that legal responses that are mildly "harsh" but used frequently are more effective than severely "harsh" consequences imposed rarely. As a result of their emphasis on continuousness, they protest "extremely harsh" and "cruel" methods of treating criminals, and recommend the abolition of corporal and capital punishment. For Beccaria and Bentham, severity is less important than are certainty, swiftness, and continuousness of legal reactions to crime. Further, these writers believe that the judicious application of the law for persons committing minor offenses will produce a generalizing effect, deterring persons from the commission of both the minor and serious crimes.

Beccaria and Bentham believe that general deterrence depends upon the general population knowing the consequences of breaking

the law. As a result, they are advocates of public education about legal responses.

To summarize, Beccaria and Bentham attempt to formally expand the idea of deterrence into that of general deterrence. Believing in an informed, rational public, they argue that the certain, swift, and continuous imposition of legal consequences upon offenders will discourage potential offenders from becoming actual criminals. They hold that "severe" sanctions will be necessary only when the above conditions are not met. (Cousineau, 1976:18)

PERSPECTIVES ON DETERRENCE

The use of the term deterrence is complicated by its many meanings. Modern literature focuses on various elements of the initial formulation of general deterrence by Beccaria and Bentham and interprets it in a variety of ways." For example, Bedau refers to the initial formulation as the "classical doctrine" and claims that severity, compulsion through fear, and deterrence of "others" rather than of the offender himself, are the main objectives (1967:261). Referring to the "classical school," Claster also points to fear and threat as its earmarks (1967:50). Gibbs maintains that "the deterrence proposition centres on the anticipation of certain and severe legal consequences" (1968:518). Mabbott states that the classical focus of "the deterrence theory" is the belief in the threat rather than the actual legal responses (1971:41). Schuessler

contends that the fear of consequences is the basis of the "deterrent viewpoint" (1971:182). Teevan claims that the "traditional argument" stresses the deterrence of others from committing crimes similar to those of the offender (1972:153).⁵ These examples suggest that the term "deterrence" encompasses a variety of views which render it ambiguous.

In the social science sense, there are as yet, no well articulated theories of deterrence (Bayleveld, 1980:315-316). The construct has not been developed past its "impressionistic stage" (Wilkins, 1962:326). There have been suggestions that theories might be developed by incorporation of the construct into social exchange and social learning theories (Zimring and Hawkins, 1973:2; Logan, 1971a:34-69; Tittle and Logan, 1973:371; Gibbs, 1980).

Legal Responses and Deterrence

Despite common assumption, the constituents of a legal response are not obvious. Deterrence literature uses interchangeably such terms as "legal actions," "penalties," and "sanctions." Even when only one term, such as "punishment," is used consistently, it may remain undefined and therefore subject to several interpretations, resulting in inferred meanings, contradictions, and inconsistencies. This confusion has led to a variety of perspectives on legal responses and their importance as agents of deterrence. Wilson (1980) among others argues that distinctions between such terms as "treatment" and "specific deterrence" may not be tenable. Further, Nettler (1982:6-8) notes that some legal responses to crime, such as arrest, may deter as well as, or act as a therapy.

Legal Responses Defined

For our purposes, a legal response is a consequence for an offense against the law, imposed by the state upon an actual or supposed offender because of his offense. The consequence is imposed and carried out intentionally by persons who are authorities of the legal system in whose jurisdiction the offense occurs.⁶

This definition avoids some of the problems surrounding the meaning of deterrence and legal response. Our definition does

not include the purposes of legal responses and thus separates a legal response from the intended ends to which it may be put.⁷

Many definitions of legal responses beg the question, that is they define them in terms of their intended outcomes. Thus Cramton defines a legal sanction as "a preventative technique that involves the official imposition of consequences...for the the purposes of enforcing legal obligations" (1969:432, emphasis mine), and Cooper defines deterrence as "any measure designed actively to impede, discourage, or restrain the way in which another might think or act" (1973:164, emphasis mine). Grupp simply notes that deterrence "is the primary purpose of the state's sanctions" (1971:71, emphasis mine).

Our definition does not entail an a priori statement regarding the effectiveness of legal responses in achieving purposes. For example, Bloch and Geis claim a sanction to be a "social condition, situation, or force which has the capacity to constrain human behaviour or to compel it to fall within prescribed forms" (1965:35). In this assertion the sanction is effective by definition. Such definition are useless for inquiring, as they are tautological, a priori, and/or beg the question of effectiveness.

Our definition is broad so as to enable us to include many views about the assumed deterrent effects of legal responses. Finally, our definition avoids the problematic term "punishment." Perspectives on legal responses and the

relationships between the term punishment and the meaning of deterrence are discussed below.

Forms of Legal Responses

Students of deterrence are divided on the issue of which forms or legal responses constitute deterrents. Several authors contend that the threat of legal consequences per se acts as a potent deterrent. This approach focuses on how the threats are perceived or viewed. This perspective is referred to as the law-on-the-books approach (Sutherland, 1925; Schuessler, 1952; Sellin, 1967; Schwartz, 1968; Mabbatt, 1971:41).

In contrast, other authors postulate that the legal consequence must actually be imposed upon offenders before deterrence effects occur. This perspective is referred to as the law-in-action approach (Pound, 1942; Ball, 1955; Sutherland and Cressey, 1966; Armstrong, 1971; Silver, 1968).

Kinds of Legal Responses

Students defend different kinds of legal responses as the determinants of deterrence.

Inculcation involves accusation and takes the forms of arrests, charges, prosecution, and trials. Some proponents insist that threats of inculcation are important variables in attaining deterrence (Walker, 1969:63-68; Nettler, 1982:6-8). Others maintain that inculcation must actually be carried out (Sjoquist, 1970; Logan, 1974; Tittle and Rowe, 1974).

Adjudication is the kind of legal response concerning the attribution of guilt or innocence and involves trials up to, and including, acquittal or conviction. These legal consequence, whether threatened or carried out, receives little attention in discussions of deterrence (Barber and Wilson, 1968; Jayewardene, 1972; Zimring and Hawkins, 1973:173).

Legal sanctions are the legal consequences of disposition, that is, the awarding of sanctions to a convicted offender, and the legal consequences of implementation, that is, the actual carrying out of the sentence. The threat of disposition and implementation is discussed in much of the literature, especially that on capital punishment (Sellin, 1967; Bedau, 1967). Imprisonment, as an implemented legal sanction, is commonly discussed (Gibbs, 1968a; Tittle, 1969; Logan, 1973). In that this review focuses primarily on question of the possible deterrent effects of legal sanctions, we shall use this term interchangeably with the expressions legal responses, consequences, dispositions, sentences, and interventions.

Types of Legal Responses

Regardless of whether a legal response is discussed as a threat or as an imposition as inculcation, adjudication, or legal sanction, there is argument that publicly supported responses are more potent deterrents than those lacking such support (Sutherland and Cressey, 1966:11; Chambliss, 1967).

Dimensions of Legal Responses

The dimensions of legal responses believed important by Beccaria (1764) and Bentham (1843) are certainty, swiftness, and continuousness. The relative importance of each of these three dimensions adds another aspect to the confusion surrounding deterrence.

Whereas the classical formulation holds severity to be the least important dimension, contemporary views tend to emphasize it. (Bailey, 1980). Andenaes suggests that legal responses, especially "punishments", are synonymous with severity (1952:176), and Bailey and Smith maintain that severity is the most frequently discussed and researched dimension of deterrence (1972:531).

Legal students, on the other hand, tend to emphasize certainty (Crampton, 1969:427), but with little agreement concerning what response is to be certain. Some argue for the certainty of sanctions (Packer, 1968:103), others for the certainty of inculcation (McGrath, 1965:8). Still others recommend combinations (Gibbs, 1968a:588). The dimensions of swiftness and continuousness have been neglected by contemporary students (Bailey, 1980).

The literature on deterrence lacks coherence because of the several perspectives on legal responses and deterrent effects. A further source of confusion derives from the ubiquitousness of the ambiguous term "punishment".

Legal Responses and "Punishment"

A commonly used term in discussions of deterrence is "punishment," but the meaning of this word is not clear. Some authors fail to define the term "punishment" altogether. For example, Toby (1964) considers at length the question of whether or not punishment is necessary for preventing criminal behaviour, but he does not provide a definition of this term. Sykes (1967), in an entire chapter, elaborately attempts to specify the conditions under which punishment may result in deterrence, without defining either punishment or deterrence.

In other cases, the term "punishment" has been defined in several ways, so that its meaning is ambiguous. Thus, Bloch and Geis variously view punishment as any interference with the liberty of an individual, the infliction of an injury upon an individual, a technique to coerce acceptable behaviour, and the subjective perception of the intention of a program of social intervention (1965:497-499).

Inculcation, Adjudication, and Punishment

Inculcation and adjudication in themselves are not supposed to involve any legal intentions of "punishment". Yet it has been claimed that the "unpleasantness" associated with arrest and trial may constitute a greater deterrent than the court sentence (Zimring and Hawkins, 1973:173). As a result, some students suggest that the term punishment should be expanded to include arrest and trial (Chiricos and Waldo, 1970:215; Logan, 1974;

Rowe and Tittle, 1974).

Legal Sanctions and Punishment

The term legal sanction is often defined in terms of, "punishment".⁸ For example, Hart asserts that a sanction must be administered intentionally and must involve consequences considered to be painful (1969:5). Further, Sutherland and Cressey suggest that there are two essential ideas in the notion of "punishment" as a legal sanction:

- a) It is inflicted by the group in its corporate capacity upon one who is regarded as a member of the same group.
- b) It involves pain or suffering produced by design and justified by some value that the suffering is assumed to have. (1966:308)

Deterrence and Punishment

Whether the term "punishment" is confined to discussions of legal sanctioning, or whether it refers to inculcation and adjudication, the meaning of the term "punishment" itself creates difficulties in definitions of legal responses. The concept of "punishment" may even prove to be unrelated to the study of deterrence.

Several problems in using the term "punishment" relate to the possible lack of correspondence between the amount of suffering intended and the amount, if any, actually experienced by the offender. Petrie (1967) argues that there are at least three kinds of responses to pain. Some persons are "reducers" and minimize their pain; others are "augmentors" who tend to

maximize their pain; some are "moderates" who are "stimulus-governed" and who neither minimize nor maximize their pain. Petrie suggests an interesting hypothesis to the effect that juvenile delinquents, compared with non-delinquents, tend to be "reducers," and may therefore be less amenable to modification through "pain".

Another possible differential in the amounts of suffering experienced and those intended flows from the discovery that legal sanctions intended to be painful may be shorter than those not so intended. For example, there is some evidence that some "punitively oriented" judges and magistrates impose shorter prison sentences than do "treatment oriented" judges and magistrates (Wheeler, 1968; Wheeler et al., 1968; Hogarth, 1971). In addition, the amount of suffering experienced versus the amount intended is difficult to ascertain when legal responses are awarded for more than one purpose, such as when they are intended to "rehabilitate" and "punish" the offender (Zimring and Hawkins, 1973:38). Further, the offender may interpret the intentions of his captors in a way which differs from their expectations. In regards to "treatment" versus "punishment," Lewis makes this point eloquently:

Let us not be deceived by a name. To be taken without consent from my home and friends; to lose my liberty; to undergo all those assaults on my personality which modern psychotherapy knows how to deliver; to be remade after some pattern of "normality" hatched in a Viennese laboratory to which I never expressed allegiance; to know that this process will never end until either my captors have succeeded or I have grown wise enough to cheat them with apparent success--who cares whether this is called Punishment or not? That it includes most of

the elements for which any punishment is feared--shame, exile, bondage, and years eaten by the locust--is obvious. (1962:501)

It may be impossible to assess the individual variations in vulnerability to suffering from legal responses. Small increments or decrements in legal responses allow for the greatest play of individual differences, but perhaps quantum leaps in the amounts of legal sanctions could reduce the distortion of possible deterrent effects produced by individual differences.

General and Specific Deterrence and Punishment

One of the major problems interfering with the evaluation of the effects of legal responses on crime results from the failure to consistently differentiate general from specific deterrence (Cousineau, 1973:153). Specific deterrence refers to the degree to which legal responses are effective in changing the behaviour of a particular offender who is subjected to them. General deterrence refers to the degree to which the legal responses for criminals affect the behaviour of potential offenders.

Punishment Disregarded

A major problem with the concept of punishment is that it may not be relevant in the context of general deterrence. While general deterrence perspectives usually refer to punitive responses as requirements for effectiveness, and while legal responses may reasonably be considered "intended" to be

"punitive", punishment refers to an individual's experience of a legal response, while the construct of general deterrence refers to how these responses, experienced by some, affect others. These two notions are qualitatively different.

Experiences and Deterrence

While legal responses are supposedly "punitive" to those who experience them directly, general deterrence concerns the ways these responses are supposedly experienced indirectly by potential offenders. Students of general deterrence treat the alleged indirect experiences of potential offenders in a variety of ways which can be grouped into two categories--reactions to the legal responses and reactions to the offensive behaviour.

Reactions to Legal Responses

Fear, generating restraint in the potential offender, is the reaction commonly referred to. It is clearly the fundamental concept in the arguments of Beccaria and Bentham, and this emphasis persists in modern literature (Vold, 1958; Coddington, (1971:343)).

Fear may inhibit behaviour however, without altering criminal inclination or instilling abhorrence of such behaviour. Nietzsche (1887) illustrates this point, noting that

...the broad effects which can be obtained by punishment in man and beast are the increase in fear, the sharpening of the sense of cunning, the mastery of the desires: so that it is that punishment tames man, but does not make him "better." (Bartlett, 1955:727).

Contemporary students describe several possible "emotional" agents of deterrence, some of which are related to fear, such as an "apprehensiveness component" (Matza, 1964:168) or "intimidation" (Hawkins, 1971:163). Broader concepts of internal processes include "controls" (Tappan, 1960:247), "motivations" (Parker, 1968:42), "felt general response" (Van den Haag, 1967:68), and "reinforcement" (Gibbs, 1968:518).

Internal processes are believed to operate at several levels of awareness, such as the conscious level (Tappan, 1960:247), the preconscious level (Van den Haag, 1967:47), and the unconscious level (Parker, 1968:42). Several students, who focus on the conscious level (Claster, 1967; Henshel and Carey, 1972), believe that an awareness of what might happen results in deterrence. Others suggest that deterrence occurs when awareness becomes an expectation of what will happen (Jayewardene, 1973:5). Some authors specify that this awareness must be based upon accurate knowledge about legal reactions (Beccaria, 1809; Bentham, 1843), while others maintain that accuracy is rare and unnecessary (California Assembly, 1968;⁹ Mabbot, 1971:42; Henshel, 1972).¹⁰

A few students of deterrence state that awareness involves recognition of the similarity between oneself and the actual offender, suggesting that such identification facilitates the deterrent effect (Nettler, 1974:33).¹¹

Reactions to the Offensive Behaviour

Some authors explain deterrence by emphasizing a direct reaction to legal responses. Others believe that legal responses deter by augmenting the internalization of reactions against the behaviours defined as offensive (Sutherland and Cressey, 1966:11; Osborne, 1968:157). In this sense, legal responses generates moral and "socio-pedagogical influences" (Andenaes, 1966). Hawkins refers to this process as "the educative-moralizing function of the law," "the moral or socio-pedagogical influence of punishment," and "the educative and habituate effects of our penal sanctions" (1971:163). This approach emphasizes the part that legal responses supposedly play in facilitating the belief that disobedience is wrong and offensive in itself.

Degrees of Deterrent Effects

Deterrence is also discussed in terms of the extent of its occurrence. Total deterrence refers to deterrence as a dichotomous effect, which either does or does not occur (Van den Haag, 1967:280). Partial deterrence refers to incremental effects, so that deterrence is described in terms of "more or less" (Jensen, 1969). Absolute deterrence concerns the potential of a specific legal response to deter, while marginal deterrence concerns the relative effectiveness of alternative legal responses (Zimring and Hawkins, 1973:14).

Deterrence may also be considered as either direct or indirect. Direct effects are thus held to occur when changes in legal responses alter the rates of criminality, independently of any other changes in the community. Indirect effects supposedly occur when changes in the legal responses alter the "normative climate" of a community, which in turn alters the rates of criminality (Bowers and Salem, 1972:428).

Deterrent effects are also seen as primary and secondary. Primary effects are "offense-specific," that is, legal responses to a specific crime act as deterrents only for that kind of crime. Secondary effects are "offense-general," that is, the legal responses to a specific crime affect the rates of similar offenses. (Appel and Patterson, 1965:450).

Who is Deterred?

The question of who is deterred by legal responses is not obvious. The most frequent arguments refer to the entire society as being deterred by legal responses. This position entails the belief that all members of a society have a predilection for criminal involvement and that all "need" to be deterred (Blackstone, 1768:4; Wechsler and Michael, 1973:731; Ball, 1955:399). Other perspectives limit the range of the deterrable to those living in the community or the areas where the laws are enforced (Morris, 1966:631; Mundle, 1971:59). Yet, other views assume that the majority of the population abhors criminal acts and does not require deterrence (Dession, 1962:5; Osborne,

1968:157). Some authors narrow the scope of deterrence to very likely offenders (Ball, 1955:351; Wilkins, 1962:324; Wootton, 1963:97). It is often accepted, however, that some groups, such as children, the retarded, the insane, and persons who are attracted by legal repercussions are not deterrable (Andenaes, 1966:10; Zimring and Hawkins, 1973:98).

The Sociological Perspective on Deterrence

General deterrence is frequently viewed as a process taking place within individuals. Thus Bedau stipulatively defines deterrence as

... a given punishment (P) is a deterrence for a given person (A) with respect to a given crime (C) at a given time (T) if and only if A does not commit C at T because he believes he runs some risk of P if he commits C, and A prefers, ceteris paribus, not to suffer P for committing C. (1970a:206)

However, general deterrence is also approached as a sociological problem. Nettler advises:

The public question... "What accounts for changes in crime rates and differences in crime rates between populations?" ...is a sociological one. It asks for an explanation of the behaviour of aggregates. It need not receive the same kind of answer, then, as the psychological question that asks "Why did he do it?" (Nettler, 1974:12).

Morris notes that specific deterrence refers to "the microcosm of the group of convicted criminals," whereas general deterrence refers to "the macrocosm of society as a whole" (1966:627). This construct is also implied in Bedau's

differentiation between two types of deterrence which he designates "Deterrence One," defined above (Bedau, 1970a:206) and "Deterrence Two," which he defines as follows:

...a given punishment (P) deters a given population (H) from a crime (C) to the degree (D) that the members of H do not commit C because they believe that they run the risk of P if they commit C, and ceteris paribus, they prefer not to suffer P for committing C.

Summary

What this section shows is that inquiry into deterrence is made problematic by the vast array of meanings of the word. Legal scholars nor researchers are clear on what aspects of legal responses are supposed to be doing the deterring. There is considerable debate over who is in principal, deterable, and the processes of how deterrence is supposed to take place. The attractiveness of the idea of deterrence may rest in its ambiguity, there is something in it for everyone. Ambiguity facilitates believing in deterrence. Systematic inquiry leading to consensus or definitive conclusions is denied by such ambiguity however.

NOTES

1. The Oxford English English Dictionary defines "deter" as "to discourage and turn aside or restrain by fear; to frighten from anything; to restrain or keep back from acting or proceeding by any consideration of danger or trouble."
2. From this point the terms general deterrence and deterrence will be used interchangeably unless otherwise specified.
3. In most instances, quotations and references are cited from primary sources. Some exceptions are made where the original work is in a language other than English, and where the original source is very old and the secondary source is considered reliable.
4. Bedau states that the classic doctrine of deterrence in the view that

...by far the most common way to employ a punishment as a preventive of crime is to adopt a sufficiently severe penalty so as to compel general deterrence out of fear of the consequences of disobedience (1967:216).

Claster notes that the classical school of criminology "asserts that criminal behaviour can be deterred by fear of punishment" (1967:80). Schuessler contends that the deterrent viewpoint consists of the idea that "people are believed to be deterred because they fear punishment" (1952:55). For more comprehensive discussions of the classical school of criminology and the classical theory of deterrence, see Monachesi (1955); Vold (1958); Bloch and Geis (1965); Grupp (1971); Coddington (1971); and Reckless (1973).
5. Thus Teevan suggests that "the example set by a criminal getting punished will discouraged other persons from committing similar crimes" (1972:153, emphasis mine). See also Schwartz and Skolnick (1962:133) and Armstrong (1971:27). The problem here is one of establishing classes of crime which are "similar," once criteria for "similarity" have been established.
6. This definition paraphrases Hart's definition of a legal sanction (1969:5).
7. Shwartz and Orleans specify a legal sanction to be "an officially imposed punishment aimed at enforcement of legal obligations (1967:274, emphasis mine).
8. Gibbs (1966) provides a comprehensive discussion of the

general concept of sanction, in which he notes the problems of differential perception involved. Gibbs suggests a differentiation between two components of the term sanction: hedonic components and inducement components. Hedonic components are phrased in terms of punishments and rewards may be differentially defined by the administrators and the recipients of sanctions. Inducement components are phrased in terms of sanctions which are administered with the intention of the administrator encouraging or discouraging specific behaviour patterns in the person sanctioned. As such, they avoid some of the problematic aspects of the subjective nature of punishment. While the term punishment could be usefully employed to refer only to those sanctions which are intended to inhibit behaviour (whether or not they successfully do so), this usage does not reflect the dominant connotation of the term.

9. For example, Ball suggests that among the factors which are necessary for the deterrent effect, are "the individual's knowledge of the law as well as the prescribed punishment" (1955:348). Meehl makes a more typical assertion when he simply states that "the general deterrence notion in criminal law presupposes knowledge (or, more precisely, belief)" (1971:74) with regard to sanctions.
10. Proponents of the symbolic interactionistic perspective to deterrence claim that the objective, "real" responses are not important. It is what the individual thinks the responses are which determines his response (Henschel, 1972; Waldo and Chiricos, 1972). These views may have merit in the sense that the most accurate knowledge of legal responses appears to exist among those who have experienced them. For example, the California Assembly Committee on Criminal Procedure examined the extent to which the public was aware of legislative changes regarding the severity of possible legal sanctions. It reports that

...a range of 21 to 40 per cent of the respondents had complete ignorance or were unable to even guess the maximum sentence for crimes. Furthermore, even among those who made an estimate, the per cent of correct responses ranged from 8 to 39 per cent. If one combined the number of correct responses into a single index score of accuracy, no one person correctly answered all 11 questions about penalties, while, at the other extreme, 69 per cent of the respondents answered 3 or less items correctly. (California Assembly Committee on Criminal Procedure, 1968:12)

For further elaboration of these data, see Crowthers (1969:147-158).

11. Schwartz and Skolnick suggest that the imposition of a sanction, while intended as a matter of overt policy to deter the public at large, probably varies in its effectiveness as a deterrent, depending upon the extent to which potential offenders perceive themselves as similar to the sanctionee (1964:104). Nettler notes that

...it is...assumed, with some good evidence, that you and I will get the message more clearly, the more closely we identify ourselves with the miscreant. It is believed that the more we resemble the punished person, the more forcefully his penalty threatens us and deters us. (1974:33)

Deterrence Research

Despite the importance of beliefs about deterrence, it is neither confirmed nor refuted by research (Cousineau, 1976:35). In fact, research is so limited in scope and inadequate in method that little progress has been made since the initial assertions by Becarria (1764) and Bentham (1811). This limitation is acknowledged by The President's Commission on Law Enforcement and the Administration of Justice, which notes that although the criminal justice system presumably works to reduce crime by deterrence, this "method is extremely complex and our knowledge about it is very inadequate at present" (1967d:55). It also states that, until there is a "major research program involving analysis and experimentation," decisions regarding deterrence "will be based on intuition rather than on observed fact." The research on deterrence since this observation does not lead us to any different conclusion.

These statements are made in the face of many attempts to research deterrence. Essentially, nine bodies of literature are drawn upon for this overview. First, are the early studies of deterrence focusing on capital punishment for homicide by Dann (1935), Schuessler (1952), Sellin (1957), Savitz (1958), and Sellin (1961, 1965, 1966, 1967). Second, these studies are followed by several attempts to focus on legal responses for other offenses including the works of Butel (1957), Chambliss (1966), Claster (1967), Schwartz and Orleans (1967), Schwartz

(1968), Barber and Wilson (1968), Campbell and Ross (1968), Jensen (1969), Chiricos and Waldo (1970), Bailey, Gray, and Martin (1970), Salem and Bowers (1970), Jayewardene (1972), Bowers and Salem (1972), Fattah (1972), and Teevan (1972). Bailey and Lott (1976), and Chilton (1982).

Research on deterrence also includes three integrated series of studies. The third body of research began in sociology with the study by Gibbs (1968a), whose data is re-analyzed, and re-interpreted by Gray and Martin (1969), Bean and Cushing (1971), and Erickson and Gibbs (1973). A fourth group of studies is the series in sociology initiated by Tittle (1969), re-analyzed and re-interpreted by Logan (1972), and Tittle and Row (1974). A fifth series of integrated studies emerges in the economics literature, consisting of the work of Ehrlich (1972), Votery and Phillips (1972), Phillips and Votery (1972), Carr-Hill and Stern (1973), Ehrlich (1973), Orsagh (1973), and Sjoquist (1974), Swimner (1974), Cloninger (1975), Passell (1975) Avio and Clark (1976, 1978), Danziger (1976), Holtmann and Yap (1978) and Ehrlich (1981).

A sixth group of studies, emerging primarily from the methodological inadequacies of the above studies, focuses on the beliefs that persons have about legal sanctions, and is found in the works of Claster (1967), Teevan (1976), Anderson et al (1977), Erickson & Gibbs (1979), Jenson et al (1979), Neopolitan (1980), Blumstein & Cohen (1980), Webb (1980), Paulen & Simpson (1981), Williams & Gibbs (1981), Grasmick and Green (1981),

Minor & Harry (1982), Rankin & Wells (1982), Meier (1982), Richards & Tittle (1982), Palernaster et al (1983), Hollinger & Clark (1983), and Ekland-Olson et al (1984).

The seventh group of studies are the legal sanction enhancement studies, especially those focusing on the addition of extra sanctions for offenders carry guns. These are the studies of Messinger and Johnston (1978), Heumann and Loftin (1979), Loftin and McDowall (1981), Carlson (1982), Loftin, Heumann and McDowall (1983), and Lizatte and Zatz (forthcoming).

The eighth group of research is reported by Zimring (1978) as the policy experiments in deterrence.

There are also numerous attempts to summarize and evaluate studies of deterrence (Andenaes, 1952; Schuessler, 1952; Ball, 1955; Toby, 1964; Andenaes, 1966; Biddle, 1969; Morris and Zimring, 1969; Osborne, 1969; Bedau, 1971; Bailey and Smith, 1972; Brooker, 1972; Tittle and Logan, 1973; Cousineau, 1973; Bedau, 1973; Erickson and Gibbs, 1973; Tittle and Rowe, 1973; Zimring and Hawkins, 1973; Tullock, 1974; Wellford, 1974; Wilson, 1974; Blankston & Cramer, 1974; Silver, 1974; Cousineau, 1976; Brody, 1976; Fattah, 1977; Barnard, 1977; Tittle, 1978; Gibbs, 1978; Blumstein, Nagin and Cohen, 1979; Gibbs, 1979; Beyleveld, 1979; Beyleveld, 1980; Claassen, 1980; Cook, 1980; Fattah, 1981; van den Haag, 1982; Tonry, 1982; Cohen and Paris, 1982; and Anderson, Harris and Miller, 1983). This constitutes the ninth body of literature we review.

Conclusions by the researchers and reviewers range from the belief that the research "shows" legal responses to be effective as deterrents (Tullock, 1974:110) to the contrary belief that legal responses may actually actuate crime (Schwartz and Orleans, 1967:276). Between these extremes a spectrum of conclusions attest that there is "some" evidence for deterrence (Tittle and Logan, 1973:385), that research "shows" legal responses are not effective as deterrents (Sellin, 1967; Bedau, 1967), and that the research is contradictory and inconclusive (Waldo and Chiricos, 1972:522).

The variety of conclusions about deterrence can be explained partially by the fact that researchers and reviewers use different constructs of deterrence, different measures of crime and legal responses, different sampling units for analyses, and a variety of research designs and statistical techniques (Meehl, 1971; Erickson and Gibbs, 1973; Cousineau, 1973, 1974, 1976). For example, conclusions about deterrence are inferred from a variety of kinds of research and sources of data, such as historical material (Rusche and Kirchheimer, 1939), case histories (Andenaes, 1966:962), experimental data on animals (Church, 1963) and humans (Aronfreed and Biber, 1965), the statistical analysis of cross-sectional data (Gibbs, 1968a; Tittle, 1969), longitudinal data (Chiricos and Waldo, 1970), time-series data (Sellin, 1967; Barber and Wilson, 1968), and interrupted time-series data (Chambliss, 1966; Ross and Campbell, 1968). With few exceptions such research and the

implications for inferences about deterrence have not been critically examined, synthesized and/or integrated into any overall perspective on deterrence. (Waldo and Chiricos, 1972:524; Cousineau, 1973:153; Tittle and Logan, 1973, Cousineau, 1976).

While the variety of conclusions can partially be explained in terms of the above variations, it is our conclusion that almost all of these studies should be regarded as equivocal. Because of major conceptual and methodological problems, arguments about deterrence can neither be confirmed nor rejected to the degree or extent required for establishing definitive conclusions. (Cousineau, 1976). Some of the studies of deterrence are described below.

Some Initial Studies

The initial studies of deterrence focus primarily on execution as a possible general deterrent for the crime of murder. Emphasis is on of capital punishment, the legislative provision for it, or the publicity attendant upon the threat of execution. Some selected studies follow.

Publicity and Homicide

Dann studies the supposed impact of publicity about executions on homicide rates (1935). He argues that, if execution is a deterrence, the effect of well-publicized executions should show lower homicide rates in the days

immediately following. This effect should be prominent in the community where the executed offender lives, where the offense had taken place, and where the trial and execution are well publicized.

Dann is able to find five cases which met the above requirements. There was one case for each year for the years 1927, 1929, 1930, 1931, and 1932 in the city of Philadelphia. Data on homicide for 60 days preceding and following execution were obtained from the coroner's office and checked with the prosecutor's office in order to eliminate any case which did not result in the offender being accountable for the death penalty.

Dann determines the number of homicides for each of the five cases for the "before" and "after" time periods, which he sums up. He finds a total of 204 homicides, 91 in the time periods preceding execution and 113 cases following the executions. He then groups the homicides into 10-day periods for both the "before" and "after" time periods and compares each 10-day "before" time period with its appropriate 10-day "after" period. Of the total number of homicides, 19 resulted in sentences for murder, 9 in the "before" time period and 10 in the "after" time period. Dann concludes that this shows no evidence for the impact of well-publicized executions on the murder rate (1935).

Savitz (1958) extends Dann's (1935) argument suggesting that the deterrent effect of capital punishment can be determined by assessing the impact of the "maximum publicity of trial,

conviction and the sentencing to death" (1958:338). Savitz contends that publicity about the execution itself is often "perfunctory" and appears much later than does the publicity surrounding the trial and sentence of death.

Savitz examines four cases of murder (1948:339). He selects his cases from the newspaper, The Philadelphia Inquirer, where they received thirty to seventy inches of publicity. Using homicides known to the Philadelphia police, he examines the 8-week period prior to and after each case. He sorts, from all the homicides, those which he classified as "Possible Capital Crimes" (where the offender was probably eligible for execution) and those which were "Definite Capital Crimes" (where the prosecution proceeded on a charge of first-degree murder) (Savitz, 1958:340).

Savitz analyses his data for each case for each week prior to and following sentencing. For each case, he computes the number of "Definite Capital Crimes" cases, the number of "Possible Capital Crimes" cases, and the total number of both types of cases. He then adds all the "Possible" and "Definite" murders for all four cases together to get the overall totals. These overall totals are then averaged for the "before" and "after" time periods. Savitz interprets his data as showing that there is no pattern to "indicate" deterrence (Savitz, 1958:341).

Capital Punishment and Homicide

Schuessler (1952) uses the vital statistics on homicide, collected by the United States Census Bureau and the Federal Judicial Statistics, for data on executions for the years 1925 to 1949 (1952:183-184). He asserts that, for the U.S. in general, homicide rates increase steadily from 1900 to 1926 and then decrease sharply until 1945, followed by an upward trend to about 1950. Schuessler (1952:184) claims that with some exceptions patterns of homicide rates in individual states are generally the same as the overall national pattern. Schuessler claims that homicide rates show large regional differences: low rates in New England and high rates in the South (1952:154). He states that these differences in homicide rates exist because murder is a complex sociological event--primarily a function of the season of the year, ecological area, race, and sex.

Schuessler claims that the rate of executions for persons sentenced to death remains constant from 1933 to 1943 (1952:185). For the time period 1933 to 1939, 80 per cent of those sentenced to death were executed, while in the time period 1940 to 1945, 81 per cent of those sentenced to death were executed. He states that these data contradict the belief that the ratio of executions to persons sentenced to death is declining. Schuessler also contends that, in terms of the numbers and percentages, executions remain proportional to homicide (1952:185).

Schuessler concludes that for the time period 1925 to 1949 execution practices and policy are "fairly stable" and that the

changes in and differences among homicide rates "cannot be attributed to changes in the use of the death penalty" (Schuessler, 1952:185).

The analysis of homicide and execution for the United States in general is followed by a comparison of abolition and death penalty states (Schuessler, 1952:186). However, Schuessler classifies states in terms of the legal provision for the death penalty and does not use execution rates as before. He compares homicide rates per one hundred thousand of the population for capital punishment and abolition states for all states for the years 1929, 1933, 1938, and 1949. He interprets his data as evidence that death penalty states have homicide rates that are two to three times higher than those for abolition states (Schuessler, 1952:186).

Schuessler's third analysis is of states grouped by contiguity, that is, where states share a common border and where at least one of the neighbouring states has the legal provision for capital punishment while the others do not (1952:187). He compares homicide rates for five groupings of such contiguous states for the years 1931 to 1935; 1939 to 1940; and 1941 to 1946. Schuessler states that his data indicates that the presence or absence of capital punishment makes no difference in the homicide rates (1952:186).

European data are the basis for this researcher's fourth analysis. Using statistics from Sellin's (1950) submission to

the British Royal Commission on Capital Punishment, for the countries of Sweden from 1754 to 1942 and the Netherlands from 1850 to 1927, the Swedish homicide rate per one hundred thousand of the population, and the Netherlands' homicide rate per million of the population, are used to "illustrate the fact that the independence between murder rates and the death penalty is not a peculiarity of American culture" (Schuessler, 1952:188).

The certainty of execution is the focus of Schuessler's fifth analysis (1952:189). He states that the correlation between executions in 1937 and 1949 is .48. When the risk of execution measured as the number of "executions-for-murder" per one thousand homicides for the years 1937 to 1949 in the 41 death penalty states, the correlation with homicide rates is a negative, -.26. Schuessler interprets this finding as an "indication" of a slight tendency for the homicide rate to diminish as the probability of execution increases (1952:190).

In order to determine the consistency of this slightly negative relationship between execution and murder rates, Schuessler groups the 41 death penalty states into four categories, depending upon their homicide rate (highest, upper-middle, lower-middle, lowest). By determining the average homicide and execution rate for each grouping, he finds the ratio of the average execution rate to the average homicide rate.

For the states in the highest, upper-middle, and lower-middle categories, the data are consistent with his report of an overall slightly negative relationship between execution and murder rates. However, because the category of states grouped as "lowest" in homicide rates show an increase in murder rates with an increase in execution rates, he points out that "...the homicide rate does not consistently fall as risk of execution increase" (Schuessler, 1952:191; emphasis mine). Thus he concludes that these data are "negative evidence, refuting deterrence theory (1952:191).

In his final analysis, Schuessler takes 11 death penalty states from the years 1930 to 1949, which had a wide range of execution rates. He argues that, if deterrence arguments are valid, then states with a large number of executions in one year should experience low murder rates the next year. Schuessler argues that, because some of the correlations between the number of executions and subsequent murders were high, and because of the correlations 4 were negative and 7 were positive, that execution and murder rates are independent (1952:191).

Sellin (1961, 1967a, 1967g), probably the most commonly referred to opponent of deterrence, attempts to ascertain the effect of the legislative provision for the death penalty on homicide rates. He argues that this effect can be measured by comparing contiguous or neighbouring states where at least one state does not have the death penalt. Sellin then selects 5 groups of 3 adjacent states and compares the homicide rates for

the states with capital punishment to those which do not. His 5 sets of states are compared on data for the years 1920 through 1963, based upon homicides reported in the American Vital Statistics. Sellin assumes that, while homicide rates based on Vital Statistics include murder and manslaughter, the ratio of these two offenses remains constant over time and place.

Sellin, like Schuessler (1952), presents his data in a series of charts showing the rates for each state in each of the 5 sets. He does not provide any statistical analysis of the data, but asserts that the rates for each state in each set follow the same general pattern. He concludes that, from the data presented, it would not be possible to detect the states which had the legal provision for capital punishment from those which did not. Sellin concludes that these data are evidence for the ineffectiveness of capital punishment as a deterrent of homicide.

Some Non-Capital Punishment and Studies

While the initial studies focus primarily on capital punishment and general deterrence, other researchers have become interested in specific deterrence and the impact of various kinds of legal responses on offenses other than homicide.

Beutel (1957) compares the sanctions in the law for passing bad cheques in Ameircan states with the actual number of such cases of passing such cheques. Finding that many who write these cheques are professional criminals, Beutel attempts to

investigate the supposed influence of legal provisions on habitual versus occasional offenders..

In Nebraska, enforcement of bad-cheques-laws varies markedly among different counties. The fact that writing bad cheques over thirty-five dollars is a felony in the state, does not seem to affect the rate of cheque-passing. In Colorado, passing bad cheques is a misdemeanour, while in Vermont it is not a criminal offense at all. Comparing Nebraska, Colorado, and Vermont by the number of bad cheques per one hundred of population, Beutel finds that Vermont has less than half the number of Nebraska, while Colorado has less than half as many as Vermont.

The severity of penalties, Beutel concludes, has no relationship to the number of bad cheques passed. Further, he states that the seriousness of the legal consequences imposed on a convicted cheque writer is found to have no influence on the amount of money that the cheque is written for. Beutel formulates these "general" laws as a conclusion to this study:

1. Laws will very rarely be enforced as are either written or intended.
2. Inflexibility is often the death of a law in an evolving social system.
3. Obsolete, unenforced or unenforceable laws, left unamended, may instigate the break-down of law enforcement.
4. Severe "punishment" seems no greater a deterrent than less harsh laws. (1957).

Schwartz and Orleans attempt to predict the effects of different kinds of sanctions. They examine the questions: (1) Does threatening with sanctions discourage would-be offenders from breaking the law? (2) If it does, how is this effect achieved? (3) What are the indirect results of such "intimidation"? (4) How successful is "threatening" when compared with other types of sanctions? (1967)

The authors choose income tax compliance as the area of inquiry for their study. They choose this topic because payment of taxes is a serious legal demand placed on virtually all American adults. Also, a very large percentage of the population pay their taxes. Consequently, many ethnically, religiously, and socially diverse groups may be studied and compared. As taxes are paid on a yearly basis, sequential observations can be made from a series of tax forms.

Commonplace violations of income tax laws mean that those who do not pay may be compared with those who do. It allows for the estimation of the effect of different "motivations" in different taxpayers, as well as the discovery of which sanctions encourage full payment and which sanctions do not. The objectives of Schwartz and Orleans are: (1) to discover the reactions to sanctions involving "threats" and (2) to compare these results with appeals to taxpayers' "consciences".

The methodology involves an experimental design. Two experimental and one control group are selected. These groups

are judged to be basically the same in social characteristics. Then the two experimental groups are subjected to two different types of sanctions to determine their reactions and compared to those of the control group which are not subjected to any sanctions.

Tax information on all groups is supplied by the Internal Revenue Department. The subjects are matched through residential information from census tracts. Income levels are ten thousand dollars or more to eliminate those whose income is too low to require reporting. Assignment to the experimental and control groups is reportedly done at random. There are 92 people in the "control" group, 91 in the "conscience" group, and 89 in the "sanction-treated" group. All groups are asked, one month before their returns are due, about their reactions to tax policies. Each of the groups is asked questions designed to draw out particular reasons for paying taxes. The "sanction-treated" group is asked: "Under what conditions do you think the government should impose a jail sentence for the willful failure to pay taxes or interest?" Other questions emphasize the severity of government sanctions and the likelihood of apprehension. The "conscience" group is asked questions emphasizing the moral reasons for paying taxes, such as: "Is the willful failure to pay taxes or interest an abdication of the duties of a citizen?" Other questions emphasize the non-controversial uses of tax funds, a citizen's obligations, and personal integrity. The control group is given the same

basic questionnaire but without those questions which are appeals to the "conscience" or "threats of the law."

The content of the questionnaires is analyzed to determine responses to the question, "What reasons do you think taxpayers might have for reporting all the interest they earn on their tax returns?" Schwartz and Orleans claim that many social variables influence attitudes toward tax payment. However, the overall findings are interpreted by Swartz and Orleans as suggesting that (1) inclination to pay taxes may be increased through threat of "punishment," and (2) appeals to the taxpayer's "conscience" can be more effective than those threats (1967).

Some Sociological Studies

Two integrated series of studies on deterrence are found in primarily sociological criminological literature. These studies focus on the "Index Crimes" of homicide, robbery, burglary, larceny, rape and auto theft; using geographic units of analysis, such as the state or province; creating indices of crime and legal responses based upon published secondary statistics; and applying sophisticated statistical techniques for analyzing the data. The researchers in each series, continue to expand and refine arguments about deterrence within each series, while also debating the relative merits of the two streams (Logan, 1971b; Erickson and Gibbs, 1973). Further, some of the issues raised by these two research streams are resulting in some independent studies (Chiricos and Waldo, 1970; Teevan,

1972).

Gibbs (1968a) initiates a new approach to the study of deterrence. He uses the Uniform Crime Reports and the National Prisoner Statistics to compute indices of certainty and severity of legal responses imposed upon offenders. He measures the certainty of legal responses by the ratio of prison admissions divided by the number of crimes known to the police. He uses the median number of months served in prison by homicide offenders as a measure of severity.

Gibbs attempts to determine the impact of the certainty and severity of imprisonment on homicide rates. His certainty index uses data for offenders admitted to prisons for homicide in 1960 divided by the number of homicides known to the police for the years 1959 and 1960. He calculates severity by determining the median number of months served for homicide by offenders in each state prison as of December 31st, 1960.

Computing his indices for forty-eight coterminous states, Gibbs calculates the average annual rate of homicides known to the police per one hundred thousand of the population for the years 1959 to 1961 inclusive. Gibbs analyzes his data in four ways. First, in order to determine the importance of certainty, he compares state homicide rates between those above and those below the median level of certainty. He computes a correlation for these two groups of states and concludes that there is an inverse relationship between certainty and homicide rates.

Second, Gibbs analyzes his data for the importance of severity in the same way, and finds a similar, though weaker, relationship between severity and homicide rates (1968a).

Third, Gibbs compares the homicide rates for states above the median on certainty, and below the median on severity with those states below the median on certainty, and above the median on severity. The correlation is interpreted by Gibbs as indicating that the homicide rates are not significantly different between the two groupings.

Finally, Gibbs compares states which are above the median in both certainty and severity with states below the median on both certainty and severity. Gibbs states that the overall pattern of correlations indicates an association, that is, severity and certainty are jointly negatively associated with homicide rates (1968:523-524).

Gibbs' conclusion is reasonable, starting that, because homicide rates may be also affected by non-legal factors which are not controlled for in his study, the findings only "question the common assertion that no evidence exists for a relationship between legal reactions to crime and the crime rate" (1968a:529).

Tittle, like Gibbs, examines the relationship between certainty and severity for all American states from statistics reported in the Uniform Crime Reports and the National Prisoner Statistics (1969:409-423). His measure of certainty is the

number of admissions to state prisons from 1959 to 1963, inclusive, divided by the number of crimes known to the police from 1958 to 1962, inclusive. Severity is determined by the mean length of time served by prisoners released from state prisons in 1960. As a second measure of severity, Tittle uses the median sentence for offenders imprisoned in 1960. Tittle points out that this index differs from that of Gibbs (1968a) who uses the median number of "months served by persons actually in prison in 1960 rather than the time served by those who had completed their prison tenure" (1969:413, footnote number 24).

Tittle determines severity by the ratio of the average annual numbers of crimes known to the police from 1959 to 1963 per one hundred thousand population as of 1960 (1969:418).

Introducing a series of control indices, Tittle places the states into somewhat homogeneous groupings. He (1) measures urbanization by the proportion of the population living in cities of twenty-five thousand or more; (2) computes the level of education of the population using the median amount of education; (3) measures the age distribution of the population by the proportion of persons between the ages of fifteen and twenty-nine; (4) calculates the sex ratio for those of the population between the ages of fifteen and forty-nine; and (5) obtains a measure of the degree of "modernism" by calculating the proportion of persons in "non-farm occupations" (Tittle, 1959:414). He asserts that these five variables are "important correlates of the amount of deviance" (1969:414).

certainty between the years 1950 and 1960 is calculated by subtracting the level of certainty for 1950 from the equivalent measure for 1960, and dividing this by the 1950 measure of certainty.

Chiricos and Waldo gauge the severity of imprisonment by computing the median length of time served by inmates released. They compute these measures from the National Prisoner Statistics for the years 1960 and 1964 (1970:204). To assess the percentage change in severity between the two time periods, the authors subtract the measure of severity for 1960 from that for 1964, and divide by the severity measure for 1960. Chiricos and Waldo compute crime rates, in terms of the number of offenses known to the police per one hundred thousand of the population. They compute four average crime rates, for the years 1950, 1951, and 1952; 1960, 1961, and 1962; 1963, 1964, and 1965; and for 1964, 1965, and 1966.

The researchers calculate all their indices of severity and certainty and their crime rates for six of the "Crime Index" offenses, eliminating the seventh index offense category of "sex offenses" because of differences in definition and kinds of offenses between the Uniform Crime Reports and the National Prisoner Statistics. All these indices are computed for forty-eight conterminous states in the United States.

Chiricos and Waldo (1970:206-207) analyze their data in three ways. To test for an association between certainty and

crime rates, they compare (1) the measure of certainty for 1950 with the average crime rates for 1950, 1951, and 1952; (2) the measure of association for the certainty level in 1960 with the average crime rates for 1960, 1961, and 1962; and (3) the 1963 level of certainty with the average crime rates for the years 1963, 1964, and 1965. The six offenses are reported as showing no negative relationships between levels of certainty and subsequent crime rates (1970:207).

The authors analyze severity by comparing the 1960 measure with the average crime rate for 1960, 1961, and 1962; and by comparing the severity measure for 1964 with the average crime rate for 1964, 1965, and 1966.

Measures of association for the six offenses are interpreted as revealing no relationship between the severity index and subsequent crime rates (Chiricos and Waldo, 1970:208).

Chiricos and Waldo then compute the percentage of change in certainty and the percentage change in subsequent crime rates for each of the six offenses. The percentage change between 1950 and 1960 is compared with the percentage change in crime rates for the periods of 1955 to 1965; 1959 to 1965; and 1960 to 1965 (1970:209). This procedure is repeated for data for certainty changes between 1950 and 1963 and between 1960 and 1963 with comparisons for subsequent changes in crime rates. This mode of analysis is repeated for the data on changes in severity and changes in crime rates. Chiricos and Waldo interpret the data as

providing no support for relationships between changes in certainty and severity and subsequent changes in crime rates (1970:210).

Teevan (1972) uses the Canadian Crime Statistics, Statistics of Criminal and Other Offenses, and Correctional Institution Statistics, published by the Canadian Dominion Bureau of Statistics, to test for a possible relationship between the certainty and severity of legal responses and crime rates in Canada.

Teevan is one of the few researchers of deterrence to use court data. Thus, his index of certainty is the percentage of court convictions from the number of crimes known to the police (1972:159).

Teevan is also innovative in deterrence research because he uses, as a crime rate, the total number of crimes known to the police per one hundred thousand of the population aged seven or older.

Examining data for the years 1964 to 1967, Teevan concludes that there has been a general but slight decline in the certainty of convictions accompanied by a general but slight increase in the crime rate (1972:160).

Teevan then uses his index of certainty to determine the association for th specific offenses of rape, robbery, breaking and 4ntering, and murder. The analysis utilizes the data for

each offense, for each year from 1964 to 1969, inclusive. Teevan concludes that for all the offenses there is a slight decrease in certainty and a slight increase in crime rates (1972:160-161).

Teevan gauges the severity of legal response by computing the median time served by offenders released during the years under study for the offenses of robbery, rape, and breaking and entering (1972:162).

The analysis of statistics for the years 1964 to 1968 inclusive leads Teevan to infer that severity has remained constant and that crime rates have been increasing (1972:163).

Some Economic Studies

Econometricians research deterrence arguing that criminals can be treated as economic, rational beings, making decisions under risk. They see the choice between legal and illegal behaviour as a function of psychic and economic costs and the time invested in criminal behaviour to be partly a function of the perception of the certainty and severity of legal responses. These studies, like those in sociology, use geographic units of analysis, secondary statistics as sources of data, indexes of crime and legal responses and sophisticated statistical analysis.

Ehrlich (1972), probably the most frequently cited proponent of deterrence, argues that deterrence can be studied by using the assumptions that individual decisions to engage in illegal

versus legal activities is a function of the gains and costs associated with these pursuits. Two of the determinants of this choice are the certainty and severity of legal responses. Increases in either of these variables, with all else being equal, are held to reduce the incentives for crime. Ehrlich also argues that certainty and severity are responded to differently by those who are risk preferers, risk neutral, and risk avoaiders. Further, individual choices are subject to the opportunities to work legitimately and/or in criminal activity, the offenders capacity to bribe, employ legal counsel, the time needed learn the required skills, and previous convictions (Ehrlich, 1972:265).

Ehrlich's approach is one which emphasizes the determinants of individual choice, but because there are no data available to measure these variables, he substitutes aggregate data for American states in order to test his theory. Using the Uniform Crime Reports and the National Prisoner Statistics as sources of data for the seven "index crimes," for the years 1940, 1950, and 1960, Ehrlich attempts to test his argument about individuals at the aggregate level (1972:269).

Ehrlich asserts that one can separate the measurement of incapacitation effects--that is, the lowering of crime rates due to the offenders being in prison--from deterrent effects. Ehrlich states that incapacitation applies only to offenders arrested and imprisoned, while deterrence affects "all actual and potential offenders" (1972:268). He contends that

incapacitation can be measured by (P) the increase in the certainty and severity of legal responses, indexed as the rates of the number of offenders arrested and punished, divided by the total number of offenders at large, or (T), the number of previous sentences served by the offender. Ehrlich refers to previously published data which indicates that for specific states these measures show "persistent and relatively steady differences." He argues further that incapacitation effects can be separated from deterrent effects by comparing the crime rates for (1) states where P and T are roughly equal in value--incapacitation--with (2) states where P and T are significantly different. He contends that when crime rates respond to differences between P and T, this indicates a deterrent effect (1972:269).

Ehrlich uses multiple regression analysis to estimate the effect of certainty and severity upon crime rates. His crime rate consists of the number of offenses known to the police per capita. (Note that Ehrlich's concept of all actual and potential offenders is inappropriately measured as offenses known to the police.) His certainty measure is computed as the ratio of commitments to federal and state prisons divided by offenses known to the police. He determines severity in terms of the average length of time served by inmates released during the year under study. In addition he points out "some of the major theoretical determinants of criminal activity" are in the per cent of the non-white population, the median family income, and

the percentage of families below one-half of the median family income. Further, he observes that while serious crimes are under reported and imprisonment is not the only way that offenders are treated, it is reasonable to assume that these two variables are randomly distributed in the population from time to time and place to place. His regression model for the crime rate is a function of (1) certainty of imprisonment, (2) severity of imprisonment, (3) median family income, (4) percentage of families below one-half of the median family income, (5) and an error term which is based on the assumption that the measurement error and variations among these variables are random.

Since the crime rate may be a determinant of certainty and/or severity, Ehrlich analyzes his data by excluding measures of the crime rate and determining the certainty for various determinants of criminal activity. For example, by comparing the certainty of arrest with the certainty of imprisonment separately for whites and non-whites, he believes that he has eliminated the effect of the crime rate on certainty (1972:275).

Ehrlich also argues that the effect of certainty and severity of legal responses can be due to offenders shifting from one kind of criminal activity to another. For example, he claims that because offenders arrested for robbery are often convicted of burglary, that these two offenses are complementary. On the other hand, he claims that theft is a substitute for robbery. He proposes therefore, that increases in the certainty of arrest for burglary can reduce the rates of crime for both the offenses

of robbery and burglary and increase the rates of offenses for theft. Offenders can shift from offenses which are complements to those which are substitutes. To test for this possibility, Ehrlich compares the crimes against property with those against the person. (This does not provide a test for Ehrlich's plausible argument, because his complementary and his substitute offenses are within the property offense group and the crimes against the person that he studies, that is, murder, rape, and assault, are not substitutes for property offenses.)

Ehrlich interprets all of his data as supporting his contentions. He states that the magnitude and the signs of the various correlations all indicate support for the importance of certainty and severity in affecting criminal activity, and that evidence for states where P and T are about the same magnitude compared with states where P and T are very different permits the separation of incapacitation from deterrent effects (Ehrlich, 1972:275).

Summary

Our preamble to this review points out that research on deterrence leads to a variety of findings and conclusions. Further, our assertion that, to date, deterrence has neither been confirmed nor refuted by research is illustrated by our summary of some studies on deterrence. While each study has its own methodological flaws, there are major problems common to all

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of the studies on deterrence. In addition, there are requirements for an adequate test of deterrence that have not been met by any of these studies.

PART C

SOME METHOLODOLOGICAL AND CONCEPTUAL ISSUES IN DETERRENCE RESEARCH

Introduction

The methodological and conceptual issues in deterrence research are of such a critical nature that the most plausible conclusion is that, with some very few and isolated cases, the bulk of deterrence research is equivocal. Thus arguments about deterrence are neither confirmed nor refuted on the basis of the research to date.

A list of major methodological problems and conceptual issues would be of considerable length. Therefore, what follows, is an analysis of a few of the problems which cut across almost all of the major attempts to access deterrence arguments. First, we begin by drawing attention to the problems associated with using crime rates as measures of the consequences of legal sanctions designed for deterrence effects. Second, we outline critical problems in the conceptualization and measurement of legal sanctions themselves.

CRIME RATES FOR DETERRENCE RESEARCH

Difficulties in inferring conclusions from data are only part of the trouble in thinking about deterrence. There remain questions about the quality of the data themselves. In order to research deterrence we need a reliable and valid measurement of crime over time. A crime rate measurement over time is required which consists of a numerator, representing units of crime,

divided by a denominator, representing the population-at-risk, within a given time period.¹ Since deterrence literature contains varying applications of crime rates, as well as varying formulations of the numerator and denominator, it is important to analyze some characteristics of these elements in order to avoid ambiguity.

THE NUMERATOR

Crime rates are measured from different vantage points for different purposes and it is difficult therefore to define their common basis.² It is not the "correctness" of alternative crime rates, but their applicability to specific problems, which requires definition. In order to establish an accurate numerator for the determination of a realistic crime rate, we must first attempt to identify three elements: (1) Should the numerator express the number of offenses or the number of offenders? (2) If we employ offenders, should the numerator express offenders in toto or specific kinds of offenders? (3) Should the numerator express the frequency or the gravity of crime, or both?

Offenses Versus Offenders

Crime rates may be expressed either by the number of offenses committed or by the number of offenders. The latter method appears to be more accurate for use in deterrence studies. Preference for the use of the "offender rate" is based

on such factors as: (1) deterrence concerns the effects of legal responses on persons, and (2) information from the offender is often required before the offense itself can be established (for example, to distinguish murder from manslaughter).³ Furthermore, by employing an "offender rate," we can include or exclude juveniles and the insane,⁴ since the philosophy of legal responses for these persons is rarely based on deterrence.

Total Offenders Versus Offense-Specific Offender Rates

Beccaria argues that legal responses for minor crimes will produce a "generalizing effect" so that serious crimes will also be deterred (Manzoni, 1964:57). Contemporary students of deterrence, however, rarely proposed a crime rate based upon total offenses or offenders. Most studies use "offense-specific" crime rates and, to date, no one uses "offender-specific" rates. While "total-offender" rates would be in keeping with Beccaria's idea of a generalizing effect, "offender-specific" crime rates also provide a reasonable measure for testing deterrence arguments.

Initial Offenders; New and First Offenders

If we assume deterrence to be "offense-specific," then a revealing indicator is the rate of initial offenders. This group includes both first offenders, that is, those who have previously committed neither the offense in question nor any other offense, and new offenders, that is, those who have not previously committed the offense in question but have committed

other offenses.⁵ A basic concept in law expresses the view that recidivist offenders differ from initial offenders in that they are subject to specific deterrence and, therefore, require a different response.

The number of persons who can be excluded under this criterion is difficult to estimate, given the paucity of data. Christensen is one of the few criminologists to attempt to measure crime in terms of the percentage of population which has a record of arrest for a non-traffic offense, and the percentage of the population convicted of such an offense (1967:216). Christensen's use of "virgin arrest ratio" and "virgin conviction ratio" could be applied to the study of initial offenders (1967:216). However, researchers to date appear not to distinguish between initial, new and first offenders in measuring crime rates for the analysis of deterrence (Cousineau, 1973:153).

Serious Initial Offenders

The evaluation of deterrence may be limited to the impact that legal responses have on serious crimes. Coincident with public interest, these crimes are the traditional concern of deterrence studies. Various researchers have attempted to determine which crimes are believed to be the serious one through assessing the opinions of the general public,⁶ persons involved in the administration of justice,⁷ and university students.⁸ Legal definitions and descriptions of criminal events

are also examined.⁹

Frequency Versus Gravity of Crime

A reliable measurement of crime for the purpose of evaluating deterrence should distinguish between the number of offenses and offenders and the gravity of the offenses. It is possible that legal responses which affect the frequency of crime do not correspondingly affect the gravity of crime. Similarly, some legal consequences may reduce the gravity of crimes but not their frequency.

Gravity refers to the relative harmfulness within a given offense category;¹⁰ its measurement has received little attention in criminology, except perhaps in the work of Sellin and Wolfgang (1964). There appears to be only one deterrence study to date which considers the gravity as well as the frequency of offenses. Schwartz (1968:513) suggests that legal responses not only affect the number but also the gravity of responses. To test his hypothesis, Schwartz examines trends in forcible rape for several months before and after supposed increases in the legislated sanctions for this offense. Using the Sellin-Wolfgang scale, Schwartz categorizes the gravity of cases on the basis of two criteria: (1) whether the rape results in bodily harm and (2) the extent of bodily harm as measured by hospitalization (Schwartz, 1968).

Frequency of crime can be measured by (a) the number of convictions or (b) the number of arrests, or (c) the "crimes

known to the police." Some students of deterrence consider only number of convictions as measures of crime (Tappan, 1969; Giffen, 1965). While this approach is legally proper, it may be too restrictive to be used for the study of deterrence. Sellin (1931:341), noting that conviction rates represent the end of a series of steps involving a number of non-legal factors, argues that the "best" crime rate is that procedurally closest to the phenomenon of interest. That is, if one is interested in investigating rates of offenses, then crimes known to the police constitute the best index; if one is interested in determining the rates of offenders, then arrests form the best index (Sellin and Wolfgang, 1964:59).¹¹

For the evaluation of deterrence it seems appropriate to use the arrest rate for serious initial offenders as an index for frequency of crime. In addition, arrest data are believed to be more reliable than court data, especially when serious crimes are considered (Wolfgang, 1958:173; Turk, 1969; Ferdinand, 1970). To date, however, no studies of deterrence employ such a rate.

It is known that the amount of actual crime exceeds that recorded as offenses known to the police. There is considerable agreement that inhibiting factors, such as knowing the offender, are responsible for the discrepancy between actual crime and its recording, but we do not know if these factors operate consistently, either in degree or direction. This lack of information may not interfere significantly with crime counts in

general, yet it presents a serious problem in the evaluation of deterrence.

Since it is nearly impossible to know the true extent of criminal behaviour, deterrence arguments can only be tested by assuming that a constant proportion of all crimes are unreported and unrecorded. If one accepts Walker's estimate that half the number of crimes remain unreported (1971:15-28), and if that proportion can be assumed to be constant over time and location, then assertions about increases or decreases in crime are plausible. As Quetelet observes, statistics of crimes "would be of no utility if we did not tacitly assume that there exists a nearly invariable relationship between offenses known and adjudicated and the total unknown sum of offenses committed" (Wolfgang, 1963:713).

Unfortunately, a more plausible contention is that such an assumption is debatable. While it may be possible to identify the factors affecting the measurement of crime, there is no reason to assume that they remain constant or continue to operate in the same direction.¹²In summary, as long as the actual amount of crime remains unknown, and as long as the relation between tallies of crime and the real amount of crime cannot be specified, it is nearly impossible to evaluate the deterrent effect of legal sanctions.

THE DENOMINATOR

The second major variable in the establishment of a crime rate appropriate to the evaluation of deterrence is the denominator.¹³ If the assumption is made that deterrence affects everyone, then the population-at-risk would be the entire population, but if only segments of the population are eligible to commit serious crimes, then it is possible the denominator can be refined. Further, if it is assumed that only certain segments of the population have a proclivity for serious crimes, then the denominator can also be modified accordingly.

Eligibility

One obvious criterion of eligibility is place of residence.¹⁴ To be deterred, presumably one must live within an area subject to the legal responses. Depending on the offense in question, this may be a nation,¹⁵ a province,¹⁶ a municipality,¹⁷ a city,¹⁸ a judicial district, or a police precinct (McClintock and Avison, 1968). A second criterion of eligibility is age. To define the basic population-at-risk, some would exclude some children;¹⁹ generally, the legal age of responsibility is the cut-off point.²⁰ A third criterion requires mental competence and, therefore, excludes at least those institutionalized for mental illness (Turk, 1969:19). Since deterrence is often viewed as offense-specific, a fourth criterion requires the exclusion of those whose individual characteristics make them ineligible to commit a specific kind of crime; for example, males cannot have abortions.²¹ Finally, for assessing general deterrence, if initial offenders are the

relevant data, then the denominator must exclude all who have a previous record for the offense in question.

Proclivity

Tolstoy claims that the "seeds of crime" are in all of us (Nettler, 1974a:vii). If this is true, then the whole of society is capable of criminal involvement in all forms of crime, and the possibility of crime can be assumed without measurement. On the other hand is the contention that only a proportion of the population has a "proclivity," "inclination," "propensity," "predisposition," or "predilection" for criminal acts.²²

Determining Proclivity

Banfield (1968) suggests that an individual's "proneness" to crime depends upon a combination of at least two variables: his "propensity" to crime, which, he argues, is a function of preconventional morality, a short time horizon, and low ego strength; and his "incentive" to crime, which is determined by situational factors. Zimring and Hawkins present a typology for the determination of proclivity (1968:104). The criminal category consists of persons who participate in a given form of criminal behavior; the criminal group comprises those persons within the criminal category who are known and on whom we have information concerning their social and psychological attributes; the marginal category consists of those who are the next most likely to commit the crimes in question; and the marginal group is the identifiable portion of the marginal

category, similar to the criminal group in psychological and social attributes. Unfortunately, criminological knowledge does not provide sufficient data on these important categories for the measurement of deterrent effects.

SUMMARY

If we assume that the determination of deterrence effects rests, in part, upon of a realistic crime rate, then no study of deterrence has yet employed an appropriate crime rate. Most studies use the number of crimes "known to the police" as a numerator, but this number does not permit a guess of the numbers of persons involved, nor does it distinguish between initial and recidivist offenders, or allow for the exclusion of those not seen as deterable, such as very young children or the insane. Although arrest rates allow the formulation of offender and offense-specific crime rates, and although most studies are concerned with serious offenses, offender-specific arrest rates have yet to be accurately produced. Similarly, the majority of deterrence studies use the entire population as the denominator in determining the crime rate. As a result, many rates are given in terms of the number of crimes per hundred thousand of the population assuming census date to be highly reliable and without excluding children, the institutionalized, recidivists, or sexes when the crime in question is sexually-specific (Cousineau, 1973:154). Despite the contributions of Banfield (1968) and Zimring and Hawkins (1968), students of deterrence are not attempting to compute a crime rate with a denominator

consisting of those "most likely" to commit the offense (Cousineau, 1973:155, Cousineau, 1976:176). No study appears to use a denominator focusing on the population-at-risk and taking into consideration factors of eligibility and/or proclivity. Thus, so far neither a numerator nor a denominator has been established which might produce a realistic crime rate to be used in testing the deterrence arguments.

While the study of deterrence is impaired by the lack of adequate measures of crime, students of deterrence have attended even less to the requirements for measuring legal responses. It is to this problem that we now turn.

CONCEPTUALIZING AND MEASURING LEGAL RESPONSES FOR DETERRENCE RESEARCH

In studying specific or general deterrence, researchers focus on the legal responses as specified by the law-on-the-books and/or by the law-in-action. However, the consequences specified by law are not always the ones imposed.²³ Further the severity of the law-on-the-books is hard to determine; the gradations of legal responses often leave a range so large that without some form of measurement severity cannot be gauged.²⁴ Some students of deterrence argue that evaluation involves accounting for the certainty, swiftness, and severity of legal responses, but these factors can only be evaluated when the responses actually occur and then can be measured. Both the legal responses-in-action and the laws-on-the-books are seen as appropriate indicators for studies of deterrence by many researchers.

Several studies of deterrence assess legal responses only in terms of the purported severity of possible sanctions on the books. This is particular common in the testing for the possible deterrent effect of execution. In America, crime rates for states with the legislative provision for death are compared with those which do not have such legislation (Sutherland, 1925; Schuessler, 1952; Bailey, 1973:20. A single state is also compared before and after the abolition or re-introduction of the death penalty (Bedau, 1967; Sutherland and Cressey, 1970;

Bailey, 1973:30. These studies, however, do not take into account the possibility that legislative provisions for the death sentence are not the same as conviction rates, which in turn are not the same as execution rates (Barber and Wilson, 1968). Jayewardene (1972:9) points out that execution is a function of the probability of being detected, arrested, charged, tried, convicted, sentenced to death, and of being executed (1972:9).

Drastic changes in legislation may not provide for a test of deterrence. Schwartz (1968) uses legislative changes²⁵ in the penalties for forcible and attempted rape²⁶ as indicators of changes in legal responses, yet he does not refer to the frequency of the imposition of the new sanctions.²⁷ The range of these potential sanctions is so large that, in the absence of information on actual dispositions, severity is difficult to measure. These considerations warrant that the law-on-the-books is probably a poor measure of legal responses for the evaluation of deterrence.

Further, law-on-the-books does not allow for the determination of certainty and swiftness of legal responses. These dimensions represent essential elements in many, if not most deterrence arguments and without them any testing of deterrence is attenuated. In addition, it may be that increases in the severity of law-on-the-books reduces the certainty and swiftness of laws-in-action and, in turn, decrease deterrent effects. In the Connecticut "Speed Crackdown," legislative

changes were introduced to deter speeding by "getting tough" through increases in fines, suspension of licenses, and prison sentences (Campbell and Ross, 1968; Glass, 1968). As a result, the discrepancy between law-on-the-books and the law-in-action became clearly apparent. The research claims that law enforcers are more reluctant to act when sanctions are "too severe." As a result, there is a reduction in certainty and swiftness of sanctions. Changes in the law-on-the-books may indicate changes in law-in-action, but the exact nature of this relationship, as demonstrated in the "Connecticut Crackdown," is difficult to establish.

LEGAL RESPONSES FOR INITIAL VERSUS RECIDIVIST OFFENDERS

It seems reasonable to argue that a crime rate consisting of initial offenders be used as an indicator of the relationship between legal responses and crime. In addition, legal scholars defend the idea that legal responses for initial offenders should differ from those for others. Available data appear to support this theory.

It is often stated that would-be offenders are more likely to be affected by legal responses designed for people resembling themselves (Nettler, 1974a:33). It is judicial custom to consider the offender's previous record prior to imposing a legal response. It is also generally contended that initial offenders should receive legal sanctions different from those given to recidivists.²⁸ As a result, initial offenders are less

likely to be incarcerated,²⁹ and more likely to serve shorter sentences, than are recidivists.³⁰ There is evidence that the certainty of conviction due to plea bargaining³¹ and the subsequent length of sentences are different for initial offenders than for recidivists.³² These findings indicate that the legal responses imposed on initial offenders are different from those imposed on recidivists. Yet no assessment to date uses legal responses for initial offenders as an index for assessing deterrence.³³

SWIFTNESS OF LEGAL RESPONSES

The concept of celerity refers to the time involved from the commission of an offense to the administration of the legal sanction. It is applicable to all stages of legal responses up to conviction and the imposition of sanctions.³⁴ Perhaps celerity is best expressed as a cumulative index summarizing the time taken between the commisison of a crime through arrest to disposition. Presumably, it can also be applied to intermediate steps, yet there has been only one study of deterrence that involves the assessment of the swiftness of the legal responses (Bailey, 1980).³⁵

CERTAINTY OF LEGAL RESPONSE

Certainty of legal responses involves a chain of events consisting of the likelihood that an offender will be detected, arrested, charged, tried, and convicted. Certainty can be ascribed to both offenses and the offenders³⁶ but because

deterrence concerns the latter, the certainty of responses to offenders provides an appropriate indicator for the evaluation of deterrence.

Unfortunately, most research does not provide an appropriate measurement of certainty. Most studies use an index consisting of a denominator representing the number of crimes known to the police, and a numerator representing the number of persons known to have experienced a particular kind of sanction. For example, Gibbs (1968a) measures certainty by a ratio of the numbers of persons admitted to prison for the crime of homicide over the number of homicides known to the police. Tittle (1969) gauges certainty as the ratio of the number of persons admitted to prison over the number of crimes known to the police. Similar indices are formulated by Bailey, Gray, and Martin (1970), Chiricos and Waldo (1970), Logan (1970), Sjoquist (1970), Ehrlich (1972, 1973), and Orsagh (1973).

In all these cases, however, a failure to differentiate certainty in terms of offenses from certainty in terms of offenders introduces a degree of unreliability and invalidity. These studies do not account for such possibilities of one offender having committed a number of offenses, or conversely, the involvement of several offenders in one offense. The research to date thus fails to provide an appropriate measure of certainty. Indices which focus on offenses do not contribute any data about offenders representing the primary units of analysis in the study of deterrence.

SEVERITY OF LEGAL RESPONSES

The element of severity of legal responses is applied mainly to sanctions. There are several kinds of legal consequences, for example, those which: (a) restrain mobility and personal freedom, (b) deprive the individual of his property, (c) enforce labour, or (d) terminate the offender's life (Bloch and Geis, 1954:34; Zimring and Hawkins, 1973:173-194). These consequences may be achieved by legal sanctions such as suspended sentence, probation, fines, restitution, capital and corporal punishment, sterilization and castration, and various forms of imprisonment (Tappan, 1960:421-436). Deterrence studies, however, tend to focus generally on only two kinds of sanctions: capital punishment and imprisonment.

Severity and the Death Penalty

Considerations about the severity of execution results in several views. Beccaria opposes the death penalty because he thinks it is less severe than life imprisonment (Manzoni, 1964:48). Goyer also raises the question whether or not life imprisonment is more severe than execution (1972:86). Tullock argues that life imprisonment is frequently considered more severe than execution, even in the eyes of the potential murderer (1974:104). It is also worthwhile to note that the severity of execution has been subject to some legal contention (Long, 1973:219).

Regardless of these considerations, many contemporary students of deterrence consider execution to be the most severe sanction. Researchers assume that the severity of execution is responsible for its status as a possible deterrent (Sutherland, 1925; Schuessler, 1952; Savitz, 1958; Sellin, 1967; Bedau, 1967; Bailey, 1973).

Severity and Imprisonment

The other legal sanction commonly examined in studies of deterrence is imprisonment. With regard to imprisonment, severity is considered to be proportional to the length of time served in prison (Gibbs, 1968a; Tittle, 1969; Gray and Martin, 1969; Chiricos and Waldo, 1970; Bean and Cushing, 1971; Logan, 1972; Jayewardene, 1972; Bowers and Salem, 1972; Teevan, 1972; Ehrlich, 1972; Votery and Phillips, 1972; Phillips and Votery, 1972; Carr-Hill and Stern, 1972; Ehrlich, 1973; and Orsagh, 1973).³⁷ The emphasis on the severity of imprisonment also results in certain limitations for assessing deterrence primarily because it is an atypical sanction.³⁸

THE PROBLEMS OF DEFINING SEVERITY

Researchers appear to avoid defining and measuring severity vis-a-vis both these sanctions--capital punishment and imprisonment. Observing this problem, Green concludes that

...the various types of penalties are incommensurable in terms of some common unit of measurement. Although we can say that one type of penalty is more severe than another, it would be impossible to state objectively the length of term of probation or the amount of fine that

would equate in punative power, deterrent effect or rehabilitative value with a given period of imprisonment. (1961:26)

In order to assess the impact of legal sanctions on crime, and to make comparisons within and between sanctions, we must first attempt to define and measure their supposed severity.

Mean Versus Median Prison Terms

Many studies judge severity either in terms of the average time served in prison (Tittle, 1969; Bailey, Gray and Martin, 1970; Sjoquist, 1970; Ehrlich, 1972) or by the median time served (Gibbs, 1968a; Tittle, 1969; Chiricos and Waldo, 1970; Teevan, 19720. Tittle (1969) and Schwartz (1968) also refer to the maximum length of sentences allowable by law.

The use of both the mean and the median as a measure of severity may be questioned on the grounds that these data are "artificial" and may not represent the actual patterns of sanctions. The median is a convenient but an arbitrary breaking point in the data. This criticism is supported by the fact that there is no theoretical, empirical or logical justification for the choice of the fiftieth percentile as the cutting point; it would be equally logical to propose a higher percentile, such as the seventieth. The mean can also be criticized as not necessarily depicting the patterns of sanctions and therefore representing an artifact, one which may be particularly misleading if there is a large spread in sentencing patterns.³⁹

Modal and Exemplary Sentences

Other reasonable indicators of severity include modal sanctions. These are the sanctions occurring most frequently⁴⁰ and represent in a certain sense a "natural," real clustering of sanctions. The second measure which may be adopted is the grouping of the longest sentences imposed. When a particular kind of offense seems to be increasing in frequency, courts may impose sanctions that are longer than usual (Walker, 1969:68; Zimring and Hawkins, 1973:46). These "exemplary sentences" are intended to provide greater deterrence than the typical sanctions.

It appears then, that the length of time of imprisonment can be judged by several measures. However, deterrence seems just as adequately tested by applying extreme or modal measures of imprisonment. But even if these measurements are accepted, we are still faced with the utilization of measurements to determine the severity of serial and combined sanctions.

Scaling

To date there are no attempts to test deterrence by the use of a scale for legal responses. Since the scaling of severity entails judgments,⁴¹ selection of the scaling methodology⁴² and, of the respondents whose judgements are to be scaled, may be a problem.⁴³ Such a selection would depend on the conception of deterrence to be tested. If one considers the entire adult population to be potentially and equally at risk, its opinion on

severity presumably would be important. If, on the other hand, one considers only a marginal group to have a proclivity to crime, then that group's perceptions of legal responses may be relevant.

In addition to the entire population and a marginal group, other groups of judges may be representative. Severity might be judged by the agents of legal responses, that is, judges, magistrates, and juries, as well as those involved in the implementation of sanctions, such as wardens, police, probation and parole officials. However, no matter what segment of the population is chosen to judge legal responses, some a priori concept of the population-at-risk is implied, and any resulting scale would be open to debate. Furthermore, the judgments of the severity of sanctions by those who impose them may be wholly irrelevant to the judgments of those who are to experience them or have experienced them.

All research on deterrence assumes some hierarchy of severity within and between sanctions. Such assumptions may be reasonable, but they are not synonymous with measurement. It seems clear that severity is not only a multidimensional concept, but that it varies with different kinds of sanctions. There are many problems in comparing the severity within and between sanctions for different categories of potential offenders. If the severity of one kind of sanction differs from that of some other sanction, then these varying types of severity cannot be added together to obtain the effect of multiple or serial sanctions.

The possible multidimensional nature of severity within a sanction type adds additional difficulties to the assessment of deterrence.

Severity of Inculcation and Adjudication

Researchers of deterrence tend to assume that severity applies only to sanctions. However, arrest, for example, has been considered a sanction as well as a step in inculcation (Rowe and Tittle, 1974; Logan, 1974). It is suggested that arrest may have a stigmatizing effect, which may concern potential offenders as much as do subsequent legal responses (Zimring and Hawkins, 1973:183-190). Schwartz and Skolnick examine the effects of a criminal court record on the employment opportunities of unskilled workers (1964:104-110). They find that

...the individual accused but acquitted of assault has almost as much trouble finding even an unskilled job as the one who was not only accused of the same offense, but also convicted. From a theoretical point of view, this result indicates that permanent lowering of status is not limited to those explicitly singled out by being convicted of a crime. (1964:108)

Extending the problem of ascertaining the degree of severity involved in the inculcation and adjudication process, as well as legal sanctions, seems rather complex.

Summary

In conclusion, deterrence literature contains various problems in regards to the scope and applicability of the concept of severity. If severity is related to legal sanctions, the concept of dimensionality is less complex than if severity is also considered in terms of inculcation. If the concept is extended to all stages of the criminal justice system, severity becomes multidimensional. As such, severity may be too heterogeneous a variable to categorize and measure. To date, however, students of deterrence have not devised an adequate measure of the severity of legal responses.

NOTES

1. The concept of rate is ubiquitous in social science, and is simplistic in terms of its components (Blalock, 1960:30). Basically, a rate consists of a numerator of units of behaviour, divided by a denominator of a population-at-risk to commit those behaviours, considered over a fixed period of time (Nettler, 1974a:58).

$$\text{RATE} = \frac{\text{number of observed units of behaviour}}{\text{number of persons at risk to commit such behaviours}} \times \text{Time}$$

Conventionally, as an addition to the comparability of different rates, the number of units of behaviour in the numerator is calculated per 100,000 of the base population in the denominator, and the time period is taken as one calendar year.

2. Crime rates are defined and used in a multiplicity of ways, with resulting confusion, inconsistency, and lack of comparability. As McDonald notes:

As there is no generally accepted crime rate, it is necessary to use a range of commonly used indicators... Going from the most serious to the least, these are: convictions for indictable offenses; charges for indictable offenses; convictions for Criminal Code summary conviction offenses; children adjusted delinquent; all summary conviction convictions; traffic convictions; parking offenses known to the police. (1969:6)

None of these measurement strategies is intrinsically more "correct" than the others, but all may more-or-less be appropriate in considering diverse problems.

3. For almost all crimes, the legal definition of an offense depends, in part, on the intention of the offender to break the law. Unfortunately, if one examines only offenses, it is impossible to determine whether or not the offender committed them deliberately, with *mens rea*, or whether there were extenuating circumstances involved. Most relevant for the study of deterrence is the confusion over the various kinds of homicides. On the basis of evidence from a corpse, a coroner can usually determine whether the person met his end by natural means or by foul play. However, having decreed that a particular death is a homicide, he has no way of knowing what kind of crime (that is, murder or manslaughter) was committed.

4. Legally, in order to be eligible to commit a crime, one must be mentally competent. Acts committed by persons who are judged mentally retarded or insane cannot be counted as crimes, in that such persons cannot be held responsible for their behaviours.
5. For example, Devlin in considering the importance of an offender's record in determining the sentence he is likely to receive, notes that

...a person convicted of shopbreaking who has a history of "breaking" offenses is almost certain to receive a more severe sentence than a man convicted of a similar offense in the same court who has one previous conviction for dangerous driving, not because a conviction for dangerous driving is properly considered as less serious, but because it is altogether different... The difficulties occur...in intermediate stages where, for example, the man with a "mixed bag" of convictions is convicted of storebreaking for the first time.... It would seem appropriate to group together offenses which could roughly be described as involving dishonesty or violence, and perhaps revenue offenses. Because of their very nature sexual offenses present greater difficulty: is unlawful sexual intercourse "similar" to buggery or not? (1970:47-49)

6. Parrett (1939) has 100 citizens of New York State use the Thurstone method to rank-order the seriousness of 110 offenses. Rural and urban citizens generally show consistency in their ratings, and are able to scale the 110 offenses on an eleven-point scale. Parrett introduces an "index of ambiguity," which reflects the amount of agreement concerning the appropriate seriousness score. It is note-worthy that, the more serious an offense is considered to be, the less ambiguity there is concerning it. More recently, in 1960, the BBC asked members of the general public to select the "worst crimes" from 15 offenses, and report a rank-ordering from indecent assault (selected by 25 per cent of the sampel) to assault causing grievous bodily harm (selected by 3 per cent of the sample) (cited by Rose, 1966:415). Gibbons (1969), using a non-random sample of 320 citizens in the San Francisco area, asks them regarding the sanctions suitable for offenders involved in 20 different kinds of criminality, from murder to homosexuality. The relative seriousness of the offenses be inferred from the proportion of the sample preferring sanctions from execution to no penalty at all.
7. For example, Rose considers 13 crimes, from fatal stabbings

to pickpocketing, and compares the seriousness ratings of students, police officers, and juvenile court judges (1966). Hartley, Rosenbaum, and Snadowsky (1967) have psychotherapists rank-order to have irreversible effects on others, such as homicide, rape, violation of civil rights, and driving while intoxicated. The least serious crimes involved minor laws, such as person's property, minor violations of individual rights, and taking advantage of others. Therapists see some behaviours commonly considered as crimes, such as homosexuality, gambling, prostitution, and disorderly conduct, primarily as the result of personality disorders.

8. Thurstone (1927) uses students and the method of paired comparisons to rank-order the relative seriousness of 19 criminal offenses. Coombs (1967) replicates Thurstone's study and finds the rank-ordering of seriousness remains essentially unchanged, with the exception of sex offenses, which are judged to be somewhat less serious, and offenses against the person, which were judged somewhat more serious. Rose and Prell (1955) use the same procedure to have students rank order 13 felonies and report a "remarkable consistency" in the order indicated by different groups of students, and by the same students at different points in time.
9. For example, Green considers the rank-ordering of seriousness of crimes in terms of the maximum sentence allowed by statute, and reports a high degree of correspondence between these rank-orderings and the order based on the severity of the sentences actually imposed (1961:32)
10. The problem of assessing the gravity of crimes is complicated when attempts use legalistic definitions of crime, rather than behavioural kinds of crime. Rank-ordering becomes very difficult, and the distinctions among degrees of seriousness of similar crimes are often subtle. The method used by Chief Justice Rugg for differentiating among recklessness, negligence, and criminal negligence is instructive: it is simply the difference "among a fool, a damned fool, and a god-damned fool!" (Rugg cited by Christie, 1964:899)
11. For example, Sellin and Wolfgang conclude:

It is now a well-accepted doctrine that only certain kinds of offenses can be assumed to come to the knowledge of police agencies with sufficient regulatory so that changes in their number, when reduced to rates, would mirror changes in the total and partly unrecorded criminality involved. (1969:2)

12. Many more thefts occur than are actually reported, but there are reported thefts which did not "occur," because they were made to collect insurance money. More rapes may occur than actually reported, but some women cry rape and mean "consent followed by regret." Until the circumstances affecting the probability of arrest of an offender are clear, and until both the extent and the direction of their influence for a specific crime are known, it is impossible to ascertain whether variations in arrest rates are due to variations in the probability of a criminal being arrested. Until this can be determined, it is impossible to ascertain the effects of changes in legal responses.
13. It is conventional to differentiate between crude rates, which take as their basic population-at-risk the entire society, and refined rates, which take as their basic population-at-risk only those portions of the society directly at-risk for a particular event. For example, in demography the members of the population missing, whereas the refined birth rate is the number of births per year per 100,000 women. A still more refined birth rate would measure fertility in terms of the number of births per year per 100,000 wives of childbearing ages.

Bell notes some interesting pitfalls associated with crude crime rates (1960:153). The United States, like Canada, conducts a decennial census. As a consequence, the crude crime rates per 100,000 population, as offered by the Uniform Crime Reports, suggest distinct cyclical trends. Every ten years, the apparent crime rate drops dramatically. From one census to the next, the crime rate appears to be increasing because the rate is calculated in terms of a hypothetical stable population estimated from census data, whereas in fact the population is increasing. The more rapid the population growth, the greater the distortion. Such errors are increasingly being corrected by application of more sophisticated techniques in estimating annual population changes.

14. In passing, it might be noted that, under the circumstances, to be eligible for criminal prosecution, a person must not only reside in the geographic area, but must also be a citizen of the country. Thus, some officials of foreign governments may be granted diplomatic immunity, which renders them ineligible for prosecution for many offenses, usually but not exclusively those of a minor nature.
15. In the consideration of serious crimes, the legal statutes being violated are often applicable at the federal level, and so are uniform across the country. For example, the Canada laws involving murder and manslaughter apply uniformly to all parts of Canada, and researchers interested in capital punishment are therefore justified in taking the

entire nation as their unit of analysis (Jayewardene, 1972; Teevan, 1972)

16. In many other instances, uniformity in the law-on-books is achieved only at the provincial or state level. Most studies of deterrence have been based on American data, and have taken a single state as their basic unit of analysis. State crime rates are then used as the basic for between-state and/or within-state comparisons, and variations are considered relevant data for the assessment of the deterrent effect (Sellin, 1959, 1961, 1967a; Gibbs, 1968a; Tittle, 1969; Gray and Martin, 1969; Bailey, Gray and Martin, 1970; Chiricos and Waldo, 1970; Bean and Cushing, 1971; Logan, 1971a).
17. Some legal statutes are applicable only at the local level. Definitions of minor crimes, such as parking violations, may vary markedly from one municipality to the next.
18. Some ordinances are applicable only at the city level. Where such is the case, the largest relevant base population for the computation of crime rates is the city as a whole, which must be taken as the basic unit of analysis (Savitz, 1958; Schwartz, 1968).
19. Teevan (1972) uses as the base line for crime rates only the population seven years of age and older, the age at which under present Canadian law, a child is eligible to become a delinquent.
20. In Canada, under the Juvenile Delinquent's Act, the definition of adult status varies from province to province, and occasionally is different for males and females. The Young Offenders Act states that the upper limit for all delinquency is 17 years of age. At the discretion of the judge, exceptions may be made when the offense in question is very serious (e.g., treason, capital murder, or rape) or when it is deemed in the defendant's own best interests. Such exceptions constitute only a fraction of all juvenile offenses (Cousineau and Veevers, 1972b)
21. For example, only employed persons are eligible to become embezzlers, and only married persons may be charged with desertion. If one wished to assess the impact of legal sanctions against abortion, the appropriate base line would not be the entire population, but only the women in the fertile ages--at most, those from 10 to 50 years of age. With some exceptions, the suitable base population for charges of driving while impaired would be those persons who have a driver's license.

In the calculation of crime rates, the base population is usually defined in terms of persons who are eligible and

likely to commit crimes. For the study of deterrence, however, it is also important to consider some crime rates in terms of those who are likely or eligible to become victims or "objects" of crime. For example, for some offenses, every person in the population is potentially eligible to become a victim. However, for some offenses, only some kinds of persons are eligible to be victimized. Thus, statistics on the incidence of rape could be based on the number of women in the population. Studies of victims of forcible rape suggest that most specifically the population-at-risk might be defined as women over 10 and under 50 years of age (Reckless, 1973:99).

It is also interesting to note that the population-at-risk to become victims may be defined in terms of objects. Thus, Wilkins considers changes in the rate of larceny from motor vehicles in terms of the total number of motor vehicles (cited by Walkder, 1971:84). Similarly, McDonald relates traffic and parking offenses to the number of registered motor vehicles (1969:273). Giffen considers the number of convictions for impaired driving in terms of the rate per 100,000 licensed motor vehicles (1965:65).

22. Some dictionary definitions of these terms may be instructive. According to The American College Dictionary (Barnhart and Stein, 1964), an inclination is "a set or bent (especially of the mind or will), a liking or a preference." A propensity, like a proclivity, is defined as a "natural or habitual inclination or tendency." A predeliction refers to "a possession of the mind in favour of something, a partiality." Finally, a predisposition may refer either to simply "the condition of being predisposed" or, in a sense relevant for the present discussion, a "condition in which a slight exciting cause may produce the crime."
23. This discrepancy is most apparent in studies of the death penalty where the legal provision for execution is not the same as the number of executions (Barber and Wilson, 1968).
24. Schwartz (1968:509) reports that in Pennsylvania the penalty for rape ranged from a minimum of 15 years imprisonment to a maximum of life imprisonment--a range of as much as 40 years. For other offenses, the sanction may not be stipulated, or may be phrased so generally as to be impossible to scale. Sellin and Wolfgang (1964) scale legal sanctions in terms of the maximum prison sentences for various crimes in the Penal Code. However, this measure is truncated at its lower end, in that the smallest maximum penalty is 30 days in gaol. At the opposite extreme, the researchers are forced to estimate the penalty involved in "life imprisonment" in terms of the offender's age at the time of sentence and his life expectancy. To these limitations must be added the fact that the maximum

penalties of the Penal Code provide relatively few intervals between 30 days of imprisonment and life imprisonment (Stevens, 1968:191).

25. These changes were precipitated by a series of particularly offensive crimes. Schwartz reports:

On April 3rd, 1966...three Negro men broke into a West Philadelphia home occupied by an eighty-year-old widow, her forty-four-year-old daughter and fourteen-year-old granddaughter...the intruders viciously beat up and raped both women and the child, ransacked and looted the home...Each of the three victims was ferociously dragged and thrown about...the upstairs and downstairs were spattered with blood. The grandmother later died of her wounds. (1968:509)

The degree of atrocity associated with these crimes led to an exceptionally intense public outcry, voiced and fanned by the coverage given them by The Philadelphia Inquirer. "By the middle of April the Palm Sunday Rape in West Philadelphia had become a cause celebre throughout the state" (Schwartz, 1968:109). The state legislature devoted several special sessions within two weeks the Pennsylvania Penal Code of 1939 had been amended, with dramatic increases in prescribed legal penalties for rape.

26. For cases with bodily injury, the maximum sentence for rape was increased from 15 to 20 years imprisonment, and the maximum sentence for attempted rape was increased from 5 to 7 years imprisonment. For cases with bodily injury, the maximum sentence for rape was increased from 15 years to life imprisonment, and the maximum sentence for attempted rape was increased from 5 to 15 years imprisonment. For persons convicted more than once for rape or attempted rape, the maximum sentence was increased from 5 years to life imprisonment; when considering inveterate offenders, no distinction appears to be made between cases involving or not involving bodily injury. Purdon's Pennsylvania Legislative Service (State of Pennsylvania, 1966:27-28).
27. Schwartz's study makes the implicit assumption that the drastic changes in the potential legal penalties for rape are directly associated with comparable changes in the actual legal penalties for rape. There is, however, reason to assume that this might not be the case. We have no indication of the frequency with which the courts actually have imposed the \$10,000 fine or have sentenced offenders to life imprisonment, nor do we know the frequency with which, when such severe sanctions were indicated they were actually imposed on offenders. There is reason to believe that the drastic increase in the severity of sanctions might be

associated with an equally drastic decrease in the certainty of sanctions, incorporating a host of factors from the reluctance of the woman to press charges, to plea-bargaining, to the reluctance of the courts to return verdicts of guilty.

28. This belief is so widespread as to be largely taken for granted. For example, Gibbons asked respondents to indicate the relative seriousness of 20 criminal acts, and to indicate the sanctions they felt would be appropriate (1969:394). In most, but not all, cases he believed it relevant to tell his respondents the criminal record of the offender described: thus, some crimes were described as committed by persons without prior criminal records; some were described as committed by persons with previous convictions for other kinds of offenses; and some were described as committed by persons who were inveterate offenders. Unfortunately (for the purposes of his study), the attempt to isolate the relative seriousness of different kinds of crimes is obscured by the fact that the crimes are inconsistently described as being committed by first offenders and by known criminals. The resulting apparent differences in seriousness may reflect the common belief that crimes committed by recidivists are more serious and deserve harsher punishment than similar crimes committed by otherwise honest citizens.
29. Walker (1971:49) notes that, holding constant the specific offense, 18 per cent of first offenders for violent crimes were sent to prison, compared with 43 per cent of those with previous convictions of non-violent crimes and 72 per cent of those with previous convictions of violent crimes. Similarly, Green reports that of persons convicted of felonies, only 70 per cent of first offenders convicted of felonies, only 70 per cent of first offenders were sent to prison, compared with 82 per cent of persons with one previous felony conviction and over 90 per cent of persons with four or more previous felony convictions (1961:115).
30. Green differentiates between previous felonies and previous misdemeanours observing that

...only in cases involving no prior felony convictions does variation in the number of prior misdemeanour convictions significantly affect the sentencing of the court...The number of prior convictions for felonies, however, exerts a strikingly significant effect upon variation in the severity of the sentences; the percentage of penitentiary sentences in each of the categories is as follows: non, 14.4; one, 27; two, 35.5; and four or more, 50.7. (1961:44)

In the same vein, Devlin concludes that

...there is no doubt that the penal record of the offender is of the greatest significance in assessing the sentence and is evidenced by the number of statutes which call for higher sentences in respect to persons with a history of previous convictions. (1970:46)

31. Recidivists are assumed to know more than do first offenders about pleading guilty for considerations (Carney and Fuller, 1969). They believe that such a procedure will result in a lighter sentence than would otherwise be imposed, and they are sophisticated in arranging it. In Newman's words, they are "conviction-wise" compared with the relatively naive first offender (1956:784). In the second place, recidivists have more reason to try to "cop a plea," in that their records increase the probability of conviction and severe sentence, especially with a jury trial. Newman observes that they are also "conviction-prone" compared with the first offender who has an otherwise unblemished record (1956:784).
32. There is some evidence that persons who plead guilty tend to draw shorter sentences than do persons who stand trial. The study of plea bargaining suggests that differences in the sanctions are most apparent when comparing first offenders who plead guilty with recidivists who plead guilty. In fact, in those instances where first offenders elect to stand trial, they may actually receive longer sentences than recidivists who were "conviction-wise" enough to forego their right to trial in favour of a shorter sentence. Discussing this point, Carney and Fuller note:

The "inducement" aspect of plea bargaining, i.e., the pressure on the defendant to enter a plea of guilty was clearly illustrated in the case of United States versus Wiley. In this case, the judge imposed a heavier sentence on one of the five defendants explicitly because he refused to plead guilty. (1969:295)

33. Given the fact that first offenders are less likely to be incarcerated than other offenders, and, if incarcerated, are likely to be given shorter terms, it is not surprising that the number of first offenders imprisoned is disproportionately low. Morris reports: "First offenders...constitute a minority type of penitentiary inmates. Probably three-fifths or more of penitentiary inmates. Probably three-fifths or more of penitentiary prisoners are those who have previous records of criminal activity" (1941:139). In Canada, in 1969, of all persons admitted to penitentiaries, 79 per cent had been previously incarcerated (Cousineau and Veevers, 1972a:15). The

disproportionate representation of recidivists in prisons suggests a rather serious flaw in some research ostensibly concerned with general deterrence. Researchers who consider the severity of sanctions in terms of the mean number of months of prison terms sentences or experienced are, in fact, considering the severity of sanctions imposed most on known criminals, rather than on first (or initial) offenders.

34. The President's Commission notes that the speed with which felony cases are processed shows substantial variations depending upon factors other than the law itself and the nature of the purported crime. The Commission suggests a time table for the processing of felony cases as follows: Arrest to first judicial appearance: within 24 hours. First judicial appearance to formal charge (indictment or filing for the information): within 72 hours for incarcerated defendants and 7 days for released defendants. Formal charge to pretrial proceedings: within 19 days of arraignment on the indictment and entry of plea. Pretrial to trial: barring exceptional circumstances, within 9 weeks of arraignment. Conviction to sentencing: within 14 to 21 days. Sentencing to appellate review: within 5 months. (1970b:84-87)
35. Wolfgang (1958) takes note of what he calls the "tempo of justice," as measured in 30-day intervals in the processing of persons accused of homicide. He does not, however, relate these factors to the deterrence hypothesis.
36. Considerable confusion is generated by the different measures of certainty based upon offenses and offenders. For example, Claster assesses the perceptions of certainty of delinquents and non-delinquents:

Each item consists of a definition of one class of criminal offense, an example of that offense, and a question requiring respondents to check one of four percentage figures, at ten per cent intervals, which they believe correctly represents the "cleared by arrest" rates for that crime. The first item is: murder plans to kill his wife. He buys a gun, takes it home, and shoots her. What per cent of murders end up with someone arrested for the crime? Sixty-two per cent, 72 per cent, 82 per cent, 92 per cent? (1967:81)

From this example it is unclear whether respondents are being asked to estimate the number of offenses or the number of offenders.

37. The literature on imprisonment assumes that increases in time served are measures of severity. This assumption may be reasonable but few authors examine the potential plateau effects. Jeffery speculates about such a possibility by

extrapolating from research in learning (1965:298). He suggests that when severity reaches certain levels, a "satiation" effect occurs. Thus, it is possible that a prison sentence of 25 years is not, in fact, 25 per cent more severe than a prison sentence of "only" 20 years. Although the units involved appear to be equal, from the point of view of deterrence there is reason to suspect that there may be a point of diminishing returns, after which increasing the sanction does not produce proportionate increases in the deterrent effect.

38. In Canada, in 1967, of all persons convicted of indictable offenses, 40 per cent were imprisoned (Cousineau and Veevers, 1972a:11). Zimring and Hawkins claim that of the total number of crimes committed, only one per cent result in prison sentences (1973:336). Prison populations are also non-representative in that they are comprised primarily of recidivists. First offenders are a minority group, with three-fifths of prisoners having previous convictions (Morris, 1941:139). In Canada in 1969, of all persons admitted to penitentiaries, 79 per cent had been previously incarcerated (Cousineau and Veevers, 1972a:15).
39. Walker draws attention to a similar distinction when he considers one common measure of legal responses to crime, namely, the "average length of prison sentence" imposed by the courts (1971:52-55). He illustrates the simple point that two instances of an average length of sentence of, say, six years may be alternatively composed of an even distribution of cases over the range of imprisonment from one to twelve years, or the uneven distribution of a cluster of cases of less than two years and another cluster of more than ten years
40. To my knowledge, no researcher on deterrence has made this distinction. One exception deserves special mention, although it is beyond direct concern in that it focuses upon juvenile offenders. Hagedorn comes close to the meaning of mode when he attempts to measure the uniformity of sanctions, which he defines as "the degree to which the same punishment is applied to all juveniles committing the same offense" (1967:381). Uniformity of sanctions is, then, treated as a separate variable from severity of sanctions.
41. Most efforts to determine the severity of different kinds of legal responses have subjects rank-order the sanctions. No attempts appear to have been made to scale severity per se. For example, Rose and Prell's (1955) undergraduate students consider one year in prison to be roughly equivalent to a fine of \$2,500. Gibbons (1969) studied the public's view of legal sanctions for adults and offers a scale of severity with the following range: execution, prison for over five years, prison for one to five years, jail for six months,

jail for one month, probation, and a fine of \$100. Boydell and Grindstaff (1971) follow a similar procedure with sanctions ranging from a fine of any size which is less severe than probation for any period of time, which is, in turn, less severe than any form of incarceration.

42. Hagedorn uses a Thurstone scale to obtain the following rank-order of sanctions for juveniles: no action taken, no further action taken, unofficial probation, official probation, suspended sentence, commitment to a foster home, commitment to an institution, and commitment to reform school (1967:383). Terry (1967) rank-orders ten kinds of sanctions for juveniles. In ascending order these are: official responses of police (release, referral to a social or welfare agency, referral to state department of public welfare); official responses of the probation department (release, informal supervision, referral to court, waiver to adult court); and responses by the court (formal supervision and institutionalization). To date, no one has applied a scaling technique like that devised by Sellin and Wolfgang (1964) for measuring severity of legal responses.
43. Sellin and Wolfgang (1964:249) used an amalgamation of judges to determine the gravity of offenses; policemen, judges, university students, citizens selected for jury duty, and citizens-at-large.

PART D
THE MITIGATION OF LEGAL SANCTIONS

The Missing Knowledge

A major problem in the deterrence literature is that the realities of the detecting and processing of offenders is not brought to bear on the issue. Thus Gibbs (1977:416) suggests that one of the limitations of the deterrence doctrine is that it "...does not treat the characteristics of social control agents, their discretionary power in particular, as a variable."

It is my opinion that a reading of the literature on the impacts of legal sanctions leads to the conclusion, that with few and isolated cases, there is no substantial body of evidence to support the view that legal sanctions result in any one set of specific, intended and uniform consequences. This position seems well documented and now requires explanation.

Sociological Naivety

Most of the research on and about the outcomes of sentencing and the possibility of achieving specific and/or general deterrence is sociologically uninformed. This means that the bulk of researchers in these areas do not attend to the bodies of literature that focus on the many ways in which the practitioners in the vast number of criminal justice systems actually carry out their daily activities.

The failure of legal sanctions to achieve their intended consequences rests in the enormous numbers of sociological factors that are involved in the mundane enterprises of criminal justice systems. These mundane activities mitigate the intended consequences of legal sanctions. Some of these mitigating phenomena are outlined below.

Sources of Change

One of the possible sources of the dissipation of the desired consequences of legal sanctions may rest in the observation that the many attempts to change criminal justice systems derive from sources external to the systems themselves. Thus Brody (1975:5) asserts that:

Almost all developments in the disposal and treatment of offenders have necessarily been introduced not by those who dispense sentences but at the instigation of reformers and administrators, who have mostly been influenced by the conviction that reform can be achieved and is a more desirable goal than any other, despite the lack of any substantial evidence for their belief and the fact that those who pass sentence do not necessarily share the same view.

Unanticipated Consequences

Merton's (1936) statements about the unanticipated consequences of purposive social intervention are brought home when one examines the outcomes of different reforms in various criminal justice systems. There are now a compendium of studies which apparently show criminal justice interventions going

wrong, or being complicated by a wide variety of factors which intervene between a reform and its intended outcome (see Seiber, 1981; Austin and Krisberg, 1981; Doleschal, 1978 and 1982). Whether a reform is "liberal" (ie. decarceration) or "conservative" (ie. a "crackdown" on a specific offence), what is intended by the reformers may be negated, subverted or otherwise altered by a host of different variables and/or forces, both within criminal justice systems and outside them.

A Legislator's Fallacy

Zimring and Hawkins (1973:1) state that the belief in the deterrent strength of legal sanctions is as old as the criminal law itself. However, many people tend to think in a "straight line" about deterrence.

If penalties have a deterrent effect in one situation, they will have a deterrent effect in all; if some people are deterred by threats, then all will be deterred; if doubling a penalty produces an extra measure of deterrence, then trebling the penalty will do still better. (Zimring and Hawkins, 1973:19)

This way of thinking about deterrence results in what could be called a "legislator's fallacy", that is, if you perceive there is a problem, create or strengthen legislation, and the problem will be solved. This ignores the multitude of factors which can intervene at some point during the process, changing the intended impact of legislation, or in this case of a set of legal sanctions, and thereby changing the outcomes. Just as other criminal justice reforms have failed for not taking into

account the systemic and social variables which impact on reform, so too are deterrence oriented reforms doomed to fail if they are implemented without an examination of the same intervening variables.

Criminal Justice Reforms that Fail

Austin and Krisberg (1981) and Doleschal (1978,1982), drawing upon a number of studies and authors, provide overviews of some criminal justice reforms which they argue fail to fulfill the stated intentions of various reformers. Perhaps most noteworthy of these reforms is the introduction of diversion into criminal justice systems. Originally conceived as a way to reduce criminal convictions, court congestion, court costs, recidivism and prison and jail populations, diversion apparently not only fails to accomplish any of these goals, but in some ways is achieving the opposite of the original intentions. Rather than reducing the number of people formally processed by the courts, diversion apparently is actually increasing the number of people in the systems (Doleschal,1982:134). Criminal convictions are not reduced and neither is recidivism. Diversion does not decrease court congestion or rates of incarceration, and, in fact, increases costs (Austin and Krisberg,1981:171). Furthermore, diversion compromises the basic value of due process and increases formal intervention by the state (Austin and Krisberg,1981: 171).

One of the major reasons why these programs rarely work is that in reality criminal justice systems operate on and probably require discretion. Zimring (1981:327) contends that "the best single phrase to describe the allocation of sentencing power in state and federal criminal justice is 'multiple discretion'". At all points throughout the criminal justice system, from the legislature, to the police, to prosecutors, judges and parole boards, discretionary decisions determine what form criminal sanctions will actually take. Police discretion will be discussed first.

Variations due to Police Discretion

There is now a vast literature on policing, and its discretionary nature. No specific legal sanctions can have their intended consequences if they are not invoked. A reading of the literature on police discretion leads to the reasonable conclusion that few, if any, specific sets of legal sanctions are consistently, and uniformly enforced, at least for very long.

Grosman (1974:85) notes that the police exercise great discretion in their decisions regarding how their job is to be done. These decisions are largely made on an individual basis;

Even when the legislation defines a particular act as criminal, departmental authorities leave the degree of discretion exercised to the judgement of the individual policeman, seldom inquiring about the criteria upon which the police officer bases his decisions... A police

officer's decision not to invoke the criminal process with regard to an offender is seldom subject to review by superior officers. (Grosman, 1974:89)

Of course, the more serious an offence is, the less likely a police officer's decision will be affected by variables other than the offence itself. However, for more minor offences, variables such as the characteristics of the offender, prior record and the offender's demeanor can influence the decision to arrest (Piliavin and Briar, 1964). The decision to arrest can also be affected by the police officer's assessment of the costs versus the benefits of an arrest. Wilson (1968:84) describes the following questions an officer might ask him/herself in deciding whether to arrest;

...What does the sergeant expect of me? Am I getting near the end of my tour of duty? Will I have to go to court on my day off/ If I do appear in court, will the charge stand up or will it be withdrawn or dismissed by the prosecutor? Will my partner think that an arrest shows I can handle things or that I can't handle things?...

Given their powers of discretion, it is not surprising to find that police officers are more likely to arrest some types of people than others. Ericson (1982) claims that police are less likely to take action against citizens they define as "respectable", and often who or what a person is becomes more important than what they have done.

"Off duty police officers stopped on suspicion of impaired driving or for traffic violations are regularly given grace... Older people involved in Liquor Licence Act violations, or Criminal Code impaired driving, are given special consideration". (Ericson, 1982:169)

Wilson (1968a) attempts to classify different police departments according to their departmental style. He claims that police departments differ in the extent to which discretion is encouraged and formal rules and regulations are followed. Wilson argues that the style of a police department affects the decisions individual officers make on the street and this, in turn, has a direct relationship to arrest rates. For example, the police in the most aggressive city are six times as likely to make an arrest for a robbery, than the police in the least aggressive city (Wilson and Boland, 1981:165).

Once they have charged a person with an offence, police officers can influence what happens at the court stage. According to Ericson (1982:176), police can influence a case by the way they "construct the 'facts' that come to stand for the reality of the case, by the charges laid, and by pre-trial dealings with the defence lawyer and crown attorney". Police officers will usually lay several charges against an offender in the expectation that some of them may be dropped. Often they are involved in the plea discussions between the crown and the defence and, therefore, can have some input into the generation of guilty pleas. Finally, Ericson (1982:181) claims that the police are "structurally able to 'frame' the charges and the attendant 'facts' in a way which creates a strong propensity for the other actors in the process to accept them". In this way, the police can "control what rules and attendant sanctions are applicable," and "produce outcomes that are in conformity with

their organizational interests".

It can be seen from this that the police have enormous power in deciding whether to arrest and significant influence in the process right through to sentencing. In the exercise of their discretion, police officers make decisions which have a great impact on who is subject to legal sanctions, and what those sanctions turn out to be.

Variations due to Rural/Urban Factors

The impact of legal sanctions can be affected by differences in the application of the law within as well as between jurisdictions. Sometimes these differences are associated with the relative degree of urbanization in communities. For example, Griffiths (1981) purports to find a difference in the severity of dispositions between a juvenile court in an urban area and the juvenile courts in two rural districts. The decisions made in the rural courts are considered more severe than those in the urban court, both in terms of types of dispositions and length of time when the disposition is probation. Conversely, Hogarth (1971) contends that urban magistrates are considerably more "punitive" in their approach to sentencing than rural or small town magistrates.

Griffiths (1981:12) also examines the impact of law enforcement agencies on decision making in the juvenile court. As previously mentioned, he contends that dispositions handed

down to juveniles in rural courts were more severe than the dispositions given juveniles in an urban court. He states that these differences were largely due to the different relationships which existed between the offices of the juvenile courts and law enforcement agencies. In the rural communities, probation officers had close ties with law enforcement, whereas in the city probation officers and police viewed each other with suspicion and distrust. Griffiths argues that the more punitive dispositions received by juveniles in the rural courts were a function of the high level of law enforcement input into decision making. The less punitive dispositions given to juveniles by the urban court reflected the minimal input city law enforcement had on those decisions.

Variations Due to Perceptions of Offenders and Potential Offenders

Williams et al. (1980:106) argue that deterrence is first and foremost a perceptual phenomenon. The impact of legal sanctions may vary because of differing perceptions of their certainty and severity, as well as differing perceptions about deviant and criminal acts.

Knowledge of Sanctions

Williams and Gibbs (1981:593) argue that before investigators can draw out information about peoples' perceptions of the certainty and severity of legal sanctions, research concerning peoples' knowledge of legal sanctions must be undertaken.

Deterrence is contingent upon relatively accurate knowledge, meaning perceptions by potential offenders that are at least correlated with the penalties prescribed by law for various types of crimes...If investigators bypass knowledge of statutory penalties...they run a risk of eliciting "perceptions" of certainty and severity that have no bearing on the objective reality of punishments.

These authors purport to have found a positive association between actual and perceived maximum statutory sentencing, but suggest that the association may largely be due to public disapproval of crimes (p.604). Previous research by these authors illustrates the same point; that the public may perceive statutory sanctions not in terms of what they actually know those sentences to be, but in terms of what they feel the sanctions should be (Williams et al, 1980:122). One possibility arising from this is that,

insofar as social condemnation is the basis of public perceptions of legal sanctions, then social condemnation may be the reason why people refrain from criminal activity, not because of deterrence through legal sanctions (p.123).

Informal Sanctions and Deterrence

The possibility that people refrain from criminality for reasons other than the "fear" or threat of legal sanctions is examined by several authors (Tittle,1977; Webb,1980; Rankin and Wells,1982). By and large, these authors argue that legal sanctions are inconsequential to most people, because most people are not motivated to break the law in the first place. Webb (1980:24) states, "Prescriptions and proscriptions for conduct that are internalized in the socialization process are what keep most people law abiding." If anything, it is the fear of losing respect among the people one knows that acts as a buffer to criminal and deviant behaviour (Tittle,1977:592). Most people have conventional ties to the community and, therefore, do not want to risk social disapproval. In this way, informal sanctions are seen as important social control devices (Tittle,1977; Anderson et al,1977; Rankin and Wells,1982).

However, not all researchers concur with the above argument. Grasmick and Green (1981:12) contend that many people who are morally committed to a legal norm have violated it in the past and believe they probably will again in the future. According to Grasmick and Green (1981:12), the belief that legal sanctions are relatively certain and severe appears to have a deterrent effect on illegal behaviour even among the morally committed. However, in another study, Grasmick and Green (1980:334) admit that about 60% of the variance in the illegal behaviour of 400

randomly selected adults was unexplained by the three factors which, they claim, serve to inhibit illegal behaviour (moral commitment, perceived threat of legal responses and threat of social disapproval). They attribute most of this variance to many levels of motivation to violate the law.

Variations Due to Plea Bargaining

Perhaps the major area which must be addressed in any discussion about sentencing is plea bargaining. Any change in legal sanctions is likely to be affected by the ability of prosecutors and defence attorneys to "negotiate" charges and possible sentences in return for guilty pleas. Rich et al (1982:161) state, "The inextricable link between plea bargaining and sentencing makes it folly to address one without considering the other. In a very real sense plea bargaining is sentencing."

While the exact extent of plea bargaining in Canada and the United States is unknown, it has been sufficiently documented to be regarded as persuasive.(Verdun-Jones and Cousineau, 1979:235).

Research regarding the nature and extent of plea bargaining in Canada has been limited, however some valuable information can be gleaned from those studies which have been done. For example, Wynne and Hartnagel (1975) claim that the likelihood of bargaining varies considerably according to type of offence and that people without defence counsel are unlikely to benefit from

plea bargaining. Furthermore, they argue that native Canadians do not experience the same benefits of plea bargaining as do their white counterparts under similar conditions (as reported in Verdun-Jones and Cousineau, 1979:252).

It is also been noted that the ability of the police to lay multiple charges facilitates plea bargaining (Verdun-Jones and Hatch, 1985:14). Indeed, Wynne and Hartnagel (1975) contend that except in relation to Native Indians, the likelihood of plea bargaining is increased significantly by the existence of multiple charges (as reported in Verdun-Jones and Cousineau, 1979:252). Some authors assert that laying multiple charges is a means of gaining leverage on defendants in order to encourage guilty pleas (Littrell, 1979:132). It is also suggested that multiple charging gives the police greater control over case outcomes. Brannigan (1984:139) argues that multiple charging "serves to signal all the relevant court personnel that the individual badly needs dealing with" and also "creates the distinct impression that the client though probably not guilty of everything must surely be guilty of something".

Police also have the ability to lay a more serious charge than might actually be warranted, so that a bargain may be struck for a less serious charge. Verdun-Jones and Hatch (1985:15) suggest that this practice, along with the tendency of the police to lay multiple charges, may result in what are really "illusory" bargains, in that accused persons are not getting genuine concessions at all. In any event, it should be

stressed that police charging practices are not uniform across the country (Verdun-Jones and Hatch, 1985:15). Therefore, the nature and extent of plea bargaining may vary across jurisdictions depending, in part, on police charging practices.

Probably the single major influence on plea bargaining, however, is prosecutorial discretion. Indeed, "the discretionary power exercised by the prosecuting attorney in initiation, accusation and discontinuing prosecution, gives him more control over an individual's liberty and reputation than any other public official" (quoted in Grosman, 1974:187). With respect to plea bargaining,

part of the prosecutor's professional sense of independence is based on his important exercise of discretion and his supervisory control over the flow of case dispositions. Freedom to enter into negotiations with defence counsel and to accept pleas to lesser offences, to reduce charges and to withdraw charges, is a major aspect of the key position that the prosecutor plays in the administration of criminal justice. (Grosman, 1974b:188)

The influence of the prosecutor is also evident in their ability to make sentence recommendations. While the judiciary has emphasized that the final decision regarding sentence lies with the individual judge and that judges are not bound in any way by agreements made between Crown and defence, sentence recommendations by the Crown concerning both type and length of sentence have generally been welcomed (Verdun-Jones and Hatch, 1985:36). In fact, there are many reasons why a judge might want to follow the sentence recommendations of the Crown in cases where there has been a guilty plea. For example, a judge might

feel that the prosecutor is aware of relevant factors and circumstances which are completely unknown to the court (Verdun-Jones and Hatch, 1985:37-8).

In light of the major role played by prosecutors in the bargaining and sentencing process, one can easily imagine that differences in the nature and extent of plea bargaining either within or between jurisdictions could be dependent on the different approaches or beliefs of individual Crown attorneys. For while approval of decisions must occasionally be obtained from senior prosecutors, most decisions concerning charge reduction or withdrawal are made on the independent initiative of individual prosecutors (Grosman, 1974b:193).

It can be seen, then, that plea bargaining varies according to the influence of many different variables, and that plea bargaining, in turn, will have an impact on sentencing. One must question, therefore, the impact plea bargaining would have on sentencing reforms and or any intended legal sanctions.

To make the assumption that the impact of plea bargaining on sentencing could be nullified by the abolition of plea bargaining however, would be misguided. As previously stated, discretion removed from one point in the criminal justice system simply reappears elsewhere. Church (1976) contends that such a displacement of discretion occurs in his study of the abolition of charge reduction plea bargaining in drug sale cases. Church attempts to determine the impact of the abolition of plea

bargaining on the entire judicial system, and therefore his study is not as narrow as other studies have been (Verdun-Jones and Cousineau, 1979:257f).

The opportunity for Church's study arose when a "get tough on drug traffickers" policy was instituted by a new prosecutor. Prior to the new policy, drug trafficking charges were routinely reduced from "delivery of a controlled substance" to "attempted sale" or "possession" in exchange for a guilty plea. Church (1976:379) claims that this system produced a tendency toward overcharging. Judges were not involved in bargaining, except to ratify final agreements and, in fact, the participants in the system generally felt that judicial participation in plea bargaining was improper.

After the implementation of the new policy, the trial rate soared, guilty pleas to reduced charges for drug sales were almost eliminated and the overall proportion of guilty pleas fell considerably (p.383). However, surprisingly enough, nearly three out of every four drug sale defendants (almost 75%) still pleaded guilty to the more serious charge. Church (1976:384) states:

This extraordinary level of defendant cooperation would be difficult to explain in the absence of some form of negotiation through which assurances could be made that cooperative defendant behavior would be rewarded.

What happened subsequent to the implementation of the new policy, argues Church, is that other forms of bargaining developed over concessions not affected by the policy. Charge

bargaining shifted to sentence bargaining, and this necessarily resulted in the involvement of judges in the process. This occurred in spite of the general feeling that the judiciary should not be involved in plea bargaining, and the reluctance of judges to be so involved. Essentially, the bargaining took the form of prosecutors providing judges with "hypothetical" cases and the judges responding with "hypothetical" sentences (p.387). Those judges who did not become involved in bargaining soon found themselves with "docket problems", and Church (1976:399) attributes the rise in the trial rate to the unwillingness of these judges to negotiate sentences.

It should also be noted that in spite of greater care taken by the police in charging people with trafficking, prosecutors were more likely to drop the charges, perhaps because this was one discretionary power they retained. In addition the conviction rate fell by nearly one sixth. Church (1976:390) argues that drug sale cases which would have resulted in reduced charge convictions found their way out of the system altogether. Judges were also more likely to dismiss cases (p.391). Church's study illustrates the way in which criminal justice systems can adapt to a reform effectively nullifying its intent.

Plea bargaining in particular has been called "pervasive, tenacious and infinitely adaptable" (Verdun-Jones and Hatch, 1985:61). Plea bargaining will not be easily eliminated because, (1) the courts need to induce guilty pleas to ensure efficient case flow (Grosman, 1974b) and (2) plea bargaining may well

facilitate the accomodation of the multiple purposes of criminal justice systems (Verdun-Jones and Hatch, 1985:61). Given that plea bargaining is such an integral part of criminal justice systems, attempts should be made to regulate and control it, rather than eliminate it. In any event, sentence reformers would be wise to consider the impact plea bargaining has on legal sanctions before instituting any sanction reforms.

Another study which examines the impact of plea bargaining reform is that done by McCoy (1984). In 1982 plea bargaining was prohibited in twenty-five felony categories in California. The legislation banning the plea bargaining, however, only referred to the Superior Courts. One consequence of the ban therefore, is that plea bargaining has shifted to the Municipal Courts, which deals with the initial intake of all cases.

The results of the studies by both McCoy (1984) and Church (1977) indicate that attempts to reform plea bargaining elicit varied and diverse responses from the criminal justice system, but invariably fail to eliminate it. Furthermore, such reforms are usually accompanied by unanticipated and undesirable consequences (Verdun-Jones et al., 1985: 26). It can be concluded that plea bargaining is pervasive, tenacious and very adaptable (Verdun-Jones et al., 1985: 27).

In attempting to illustrate the ways in which discretion shifts in the criminal justice system, McCoy (1984) offers what can be called the "Hydraulic Theory" of discretion. In this

theory an analogy is drawn between discretion in the criminal justice system and a set of hydraulic brakes"

If you wish to push down on one point, the displaced volume of fluid will exert pressure and "bulge out", reappearing elsewhere in the mechanism. Similarly, discretion in the criminal justice system can never be extinguished; it is simply dislodged and shifted to other system parts...

In fact, discretionary decision-making may be a necessary part of most, if not all, criminal justice systems. Verdun-Jones et al. (1985: 27) state::

Given that fact the the criminal justice systems are charactized by attempts to acheive many varied and often conflicting goals, then it seems reasonable to assume that these systems will always generate and perpetuate discretionary decision-making processes as adaptations to these multiple ends. Discretion appears to permit and facilitate the accomodation of these multiple purposes of criminal justice systems.

Given that plea bargaining is such an integral part of criminal justice systems, the suggestion has been made that attempts to formalize and control it may have beneficial effects for the criminal justice system (Verdun-Jones and Hatch , 1985:60). However, as Verdun-Jones et al. (1985: 27) make clear while it may be possible to limit plea bargaining and other discretionary decision-making, it is not so easy to implement strategies that will actually acheive the intended consequences of the policies to control or constrain discretion. Furthermore,

achieving the intended consequences for one component of the system does not mean that the intended consequences will be aggregated throughout the system...In addition, it is likely that the combinations of intended and unintended, as well as desired and undesired consequences, will interact throughout the system to produce no single set of consequences.

Variations due to Bureaucratization

Several authors have discussed what they claim is the increasing bureaucratization of the criminal justice system (see , for example, Blumberg, 1967; Littrell, 1979). According to these authors, the fundamental nature of criminal justice has slowly changed from a system of due process to one resembling "assembly line justice" (Blumberg, 1967: 5). Blumberg (1967) contends that traditional forms of due process most notably the presumption of innocence and routine adversarial proceedings, are being replaced by bureaucratic due process which tends to promote the goals and requirements of the court organization itself, rather than the rights of individuals.

The caseloads of criminal justice systems which must be handled with limited resources and personnel, may cause problems between the administration of the law and the law itself, because the two operate on principles which are not very compatible. Administration emphasizes impersonal efficiency in the processing of cases. The law, on the other hand, emphasizes the autonomy of the individuals, and the principles of due process provide checks against efficiency (littrell, 1979: 52). Law and administration in the large scale organization of criminal justice, are forced into a single process and officials must attempt to strike a balance between the principles of the two.

Littrell (1979: 134) argues that bureaucratic justice telescopes the series of checkpoints inherent in the due process model of justice, in order to achieve the efficient production of criminal dispositions. For example, no longer is there a presumption of innocence. Instead, guilt is assumed and defendants have to prove their innocence (p. 148). Also, rather than having accusations resolved in adversarial proceedings, which takes time and money, most cases are disposed of by way of guilty pleas. Grossman (1982: 168) makes essentially the same argument, stating:

If due process standards or protections seriously impede the system's capacity to determine efficiently the large number of cases continually flowing into it, the protections will often fall victim to the administrative demands and the pressures of production.

In sum, "the tension between the administrative policy and legal principles designed to protect individuals have been resolved in favour of the administrative policy" contends Littrell (1979: 221).

In bureaucratic justice, guilty pleas are encouraged to save time, energy and resources, as well as to avoid the unpredictability of trial (Blumberg, 1967: 61). As part of the inversion of authority, it is believed that judges and juries play a relatively small role (Littrell, 1979: 35). Although judges have the most formal authority, their role is, in effect, limited due to the many guilty pleas brought before the courts. Judges cannot assess every case. They must assume that the bulk of the work done by officials at earlier stages has been done

properly (p. 36). The bulk of the discretionary decision-making is thus pushed down the system.

With this in mind, the way in which legal sanctions are implemented or the impact they might have, can be expected to vary according to the level of bureaucratization in any given jurisdiction. The extent to which a court system operates on an adversarial versus bureaucratic system of justice will effect where and how discretion is exercised, the incidence of plea bargaining and how other administrative demands are balanced with the rule of law. Legal sanctions, then, will vary because although legislative decisions may be equally applicable across the country, the administration of legislative decisions is carried out by bureaucracies, which may differ from jurisdiction to jurisdiction (Henshel, 1976: 133).

Variations due to Differences in Organization

Rather than discussing differences between individual judges or lawyers, it may be more meaningful to look at the organizational context in which those judges and lawyers work. Griffiths et al. (1980: 189) point out that the task environment is often ignored in research on individual decision-making. Yet no person in a criminal justice system makes decisions or performs duties in isolation. The task environment may influence the attitudes, beleifs and behavior of individuals operating within it (Griffiths et al. (1980: 189).

Eisenstein and Jacob (1977: 10) argue that the courts are organizations (distinguished from bureaucracies in that they are not hierarchical). The individuals who work in the courtroom, most notably judges, prosecutors and defence attorneys, perform specialized functions which fit into a broader pattern. These players, along with the court clerks, bailiffs and, to a limited extent, defendants, form courtroom workgroups. These courtroom workgroups may differ significantly from each other, even those which operate within the same court.

Eisenstein and Jacob (1977) argue that the policies and practices within different workgroups have a significant impact on the decision-making. They purport to find variations in the case outcome according to the differences between various workgroups. For example, the identity of the courtroom is the most important variable in the decision to go to trial in three different cities. Defendant and case characteristics have very little to do with this decision. "Where defendants were processed was clearly more important than who they were or what they did" (p. 205). Severity of sanctions also varies between workgroups (p. 300).

In conclusion, it can be stated that sentences are not the product of a single organization - the criminal court. Sentences are the product of many court organizations, each with slightly different goals and norms (p. 278). Reforms must take into account the nature of workgroups, as their effect on the impact of legal sanctions is clear.

Criminal Justice System's Reactions to Change

In order to determine whether a change in sanction type or level or any other reform will have its intended impact, it is necessary to examine not only the individual agencies and practitioners within criminal justice systems, but to look at criminal justice systems overall. The practices or actions of one segment of a criminal justice system do not exist in a vacuum; everything that happens within a system often affects other parts of that system. Austin and Krisberg (1981:166) state that criminal justice systems are interactive. Changes in one segment trigger reactions among others. These reactions may take the form of resistance, attempts to transform the reform strategies or efforts to destroy the reform completely. This is due, at least in part, to the competing and conflicting goals of the various components within as well as between the various systems.

No social institutions as complex as those involved in the administration of criminal justice serve a single function or purpose. Social institutions are multivalued and multipurposed. Values and purposes are likely on occasion to prove inconsistent and to produce internal conflict and tension. (Allen, 1981:111)

Furthermore, different agencies within criminal justice systems compete with one another and tend to evaluate reforms on the basis of the impact the reform has on that agency (Austin and Krisberg, 1981:166).

There are a plethora of examples which demonstrate the many ways in which reforms can be resisted or altered by various

agencies in these systems. In addition, criminal justice systems are also known to quietly adapt to changes in ways that negate the impact of reforms and nullify the intentions of the reform advocates or sanctioning..

Zimring and Hawkins (1973:62) claim that when sanctions are perceived as being "too harsh," there is often a deliberate refusal by the various criminal justice agencies to fully implement the statutes to which the severe consequences are attached. Judges, juries, prosecutors and police use their discretion in ways that mitigate the severity of the law. With some offences, they may just refuse to apply a statute altogether (Littrell,1979:168) This may be especially true in cases where they can identify with the offender.

Shover et al (1977) argue that the reasons new legislation in Tennessee providing for increased penalties for impaired driving have no impact on the highway traffic fatalities rate is because the law is not really implemented in the way in which it was intended. First of all, the police have not intensified their efforts to arrest drinking drivers. Second, although judges send more impaired drivers to jail than they did previously, they also increasingly find offenders not guilty. Judges are also quite willing to grant restricted drivers licences, which tend to negate the severity of the mandatory licence revocation for convicted offenders. In addition, although a 48 hour prison sentence is made mandatory under the new law, judges are often willing to suspend it. Last, there is

some indication that prosecutors are using the new sanctions as threats to obtain guilty pleas in return for lesser offenses. Shover et al (1977:497) contend that:

Court personnel appear to be preoccupied with the problems of managing a smooth flow of cases. As a result, when provided with legislation calling for more severe penalties, they often use them as a tool for helping them cope with the management of work flow... In the very process of using the threatened sanctions in this way their severity is mitigated.

Another example of a criminal justice systems ability to undermine the impact of increased legal sanctions is discussed by Zimring (1978). He notes the failure of the Rockefeller (1973) drug laws to deter drug use and argues that the reasons for this failure include reduced arrests, fewer offenders sent to prison and longer delays in adjudicating drug cases. In other words, various "adjustments" occur at different levels of the criminal justice system in such a way that the intended impact of the new legislation is considerably weakened. The new laws are also used by prosecutors to encourage plea bargaining in an attempt to manage their workloads (Austin and Krisberg, 1981:180). Zimring (1978:159) concludes:

...the study of the 1973 Rockefeller legislation shows the resiliency of city criminal courts under the most sustained and sophisticated attack on business-as-usual in the last two decades. The drug legislation was a clear mandate for change-and some change occurred. But the net effect of court delay and other adaptive responses was to postpone, if not nullify, the basic thrust of the 1973 legislation.

Sometimes reforms are aimed at curtailing the discretion that can be exercised to alter the intended impact of legal

sanctions. However, as Doleschal (1978:405) states, removing discretion from one place in the criminal justice system seems to simply displace it elsewhere. Austin and Krisberg (1981:182) argue that determinate sentencing may have taken discretion away from parole boards, but at the same time it has enhanced prosecutorial discretion. Prosecutors may opt to "ignore" factors which would increase the length of sentence (ie. use of a weapon) in exchange for a guilty plea. Also, the discretion to grant an early release from prison remains, but has shifted from the parole board to correctional officers who award "good-time" credits (Austin and Krisberg, 1981:182).

Zimring (1983:113-4) makes the same argument. He states that criminal justice systems suffers from a "bark and bite" syndrome; that is, "the felt necessity to announce far more substantial criminal penalties than the system is willing or able to impose" (p.113). The example he gives concerns the abolition of parole in Illinois. Rather than completely removing the discretion to shorten a prison term, however, the legislators created a system of good-time discounts which allow inmates to earn up to 50% off the legislated nominal criminal sentence. The difference is that now prison guards rather than a parole board exercise this discretion. Arguably this worsens the state of affairs, since discretionary decisions made by prison guards or administrators are far less visible than decisions made by a parole board. In keeping with his belief that the system likes to bark louder than it really wants to bite,

Zimring (1981:329) asserts that systems of parole and good-time allow the legislature to advertise heavy criminal sanctions loudly, and then quietly reduce them later.

Doleschal (1978:399) goes so far as to suggest that there is "homeostasis" in crime and the responses to it. In other words, there is a social equilibrium whereby changes to the systems trigger counterforces which restore the "equilibrium."

Discretion removed from one point of justice simply reappears elsewhere; punishment increased at one point is nullified in practice at another point...(Doleschal, 1982:146)

...crime and punishment are also in social balance, in an equilibrium assuring that neither can get out of hand in the long run, that both have their distinct limits.(Doleschal, 1982:150)

This "dynamic equilibrium" in criminal justice, according to Doleschal (1982:148), prevents those attempting to reform criminal justice by increasing or reducing legal sanctions from succeeding. Zimring and Hawkins (1973:67) contend that increasing sanction levels potentially causes and exacerbates tension within criminal justice systems more than any other kind of deterrence oriented reform. Raising sanctions may have untoward effects at all levels and stages of criminal justice systems to resist such changes, or nullify the impact of changes through its ability to adapt. Thus the Law Reform Commission of Canada (1974:68) suggests that a natural evolution of criminal justice reform is more likely to "take" than forced changes from the top.

BIBLIOGRAPHY

- Abrahamsen, D. (1960) The Psychology of Crime, Boston: Columbia University Press.
- Acton, H.B. (ed). (1969) The Philosophy of Punishment: A Collection of Papers. London: MacMillan and Company.
- Adams, B.N. (1966) "Coercion and Consensus Theories: Some Unresolved Issues". American Journal of Sociology. 71: 714-717.
- Adenaes, J. (1975) "General Prevention Revisited : Research and Policy Implications". Journal of Criminal Law and Criminology. 66: 338-365.
- Aigner, D.J. (1970) "A Comment on Problems in Making Inferences From the Coleman Report". American Sociological Review. 35: 249-252.
- Akman, D.D. (1966) "Homicides and Assaults in Canadian Penitentiaries". Canadian Journal of Corrections. 8: 284-299.
- Akman, D.D. (1967) "Homicides and Assaults in Canadian Prisons". in Thorsten Sellin (ed.) Capital Punishment, New York:Harper & Row. 161-168.
- Akman, D.D., A. Normandeau and S. Turner (1966) "Replication of a Delinquency and Crime Index in French Canada". Canadian Journal of Corrections. 1-20.
- Akman, D.D., A. Normandeau and S. Turner (1967) "The Measurement of Delinquency in Canada". Journal of Criminal Law, Criminology, and Police Science. 58: 330-337.
- Akman, D.D., A. Normandeau (1967) "The Measurement of Crime and Delinquency in Canada". British Journal of Criminology. 7: 129-149.
- Akman, D.D., R. Figlio and A. Normandeau (1967) "Concerning the Measurement of Delinquency - a rejoinder and beyond". British Journal of Criminology. 7: 442-449.
- Alcorn, D.S. (1978) A Social Psychological Perspective of Deterrence : Development and Test of a Casual Model, Ph.D., Dissertation, Brigham Young University.
- Alker, H.R. (1968) "Causal Inferences and Political Analysis". in C.L. Taylor (ed.) Aggregate Data Analysis, Paris: Moutin and Company. 209-242

- Allen, F. (1959) "Criminal Justice, Legal Values, and the Rehabilitative Ideal". Journal of Criminal Law, Criminology and Police Science. 50: 226-232.
- Allen, F. "Legal Values and the Rehabilitative Ideal" in H. Gross and A. von Hirsch (eds.) Sentencing, New York: Oxford University Press. 110-117.
- Allingham, M.G. and A. Sandmo (1972) "Income Tax Evasion : A Theoretical Analysis" Journal of Public Economics. 1: 323-338.
- Allison, J.P. (1972) "Economic Factors and the Rate of Crime". Land Economics. 48: 193-196.
- American Statistical Association (1971) "Small Area Statistician: Strengthening their Role in Federal Government and their use in Criminal Justice Programs". Paper presented at the Conference on Small Area Statisticians, Ft. Collins, Colorado.
- Amir, M. (1967) "Alcohol and Forcible Rape". British Journal of Addictions. 62: 219-227.
- Amir, M. (1967) "Patterns of Forcible Rape". in M.B. Clinard and R. Quinney (eds.) Criminal Behavior Systems, New York: Holt, Rinehart, and Winston.
- Amir, M. (1967) "Victim Precipitated Forcible Rape". Journal of Criminal Law, Criminology and Police Science. 58: 493-502.
- Andenaes, J. (1952) "General Prevention - Illusion or Reality?". Journal of Criminal Law, Criminology and Police Science. 43: 176-198.
- Andenaes, J. (1966) "The General Preventive Effects of Punishment". University of Pennsylvania Law Review . 114: 949-983.
- Andenaes, J. (1967) "Anti-Trust Criminal Sanctions". Columbia Journal of Law and Social Problems. 3: 146-157.
- Andenaes, J. (1968) "Does Punishment Deter Crime?". The Criminal Law Quarterly. 11: 76-93.
- Andenaes, J. (1970) "The Morality of Deterrence" The University of Chicago Law Review . 37.
- Andenaes, J. (1971) "The Moral or Educative Influence of Criminal Law". The Journal of Social Issues. 27.

- Andenaes, J. (1971) "Deterrence and Specific Offenses". The University of Chicago Law Review. 38.
- Andenaes, J. (1974) Punishment and Deterrence, Ann Arbor: The University of Michigan Press.
- Andenaes, J. (1975) "General Prevention Revisited : Research and Policy Implications". General Deterrence : A Conference on Current Research and Standpoints, June 2-4, 1975, 12-59.
- Andenaes, J. (1975) "General Prevention Revisited : Research and Policy Implications". The Journal of Criminal Law and Criminology. 66: 338-365.
- Andenaes, J. (1971) "General Prevention - Illusion or Reality?". in S.E. Grupp (ed) Theories of Punishment, Bloomington: Indiana University Press.
- Andersen, A. and Co. (1970) The Effectiveness of C.I.D. Effort: The Results of Some Studies Carried Out to Measure the Effect of Varying C.I.D. Manpower on Detection Achievement,
- Anderson, A.B., A.R. Harris and J. Miller (1983) "Models of Deterrence Theory". Social Science Research. 12: 236-262.
- Anderson, L.S. (1977) A Longitudinal Study of the Deterrence Model, Ph.D. Dissertation, Florida State University.
- Anderson, L.S., T.G. Chiricos and G.P. Waldo (1977) "Formal and Informal Sanctions : A Comparison of Deterrent Effects". Social Problems. 25: 103-114.
- Anderson, R.W. (1976) The Economics of Crime, London:Macmillan.
- Anderson, R.W. (1974) "Towards a Cost-Benefit Analysis of Police Activity". Public Finance. 29: 1-18.
- Antunes, G. and A.L. Hunt (1973) "The Deterrent Impact of Criminal Sanctions : Some Implications for Criminal Justice Policy". Journal of Urban Law. 51: 145-161.
- Antunes, G. and A.L. Hunt (1973) "The Impact of Certainty and Severity of Punishment on Levels of Crime in American States : An Extended Analysis". The Journal of Criminal Law and Criminology. 64: 486-493.
- Appel, J.B. and N.J. Peterson (1965) "What's Wrong with Punishment?". The Journal of Criminal Law, Criminology and Police Science. 56: 450-453.

- Arens, R. and H.D. Laswell (1961) In Defense of Public Order, New York: Columbia University Press.
- Aristotle (1930) The Works of Aristotle Translated by R.P. Hardie and R.K. Gage. London: Oxford of the Clarendon Press.
- Aristotle (1947) Metaphysics (Translated by H. Tredennich), London: Heinemann Press.
- Arnheim, Rudolf (1969) Visual Thinking, London: Faber & Faber Limited.
- Armstrong, K.G. (1971) "The Retributivist Hits Back". in S.E. Grupp (ed.) Theories of Punishment, Bloomington: Indiana University Press.
- Aronfreed, J. (1963) "The Effects of Experimental Socialization Paradigms Upon Two Moral Responses to Transgression". Journal of Abnormal and Social Psychology. 66: 437-448.
- Aronfreed, J. and A. Reber (1965) "Internalized behavioral suppression and the timing of social punishment". Journal of Personality and Social Psychology. 1: 3-16.
- Aspden, P. (1969) Analysis of Beat Patrol Experiment, unpublished report to the British Home Office.
- Assembly Committee on Criminal Procedure (1968) "Part One - Survey of Knowledge of Criminal Penalties". Progress Report. State of California.
- Aubert, V. (1969) Sociology of Law, Middlesex: Penguin Books Ltd.
- Austin, J. and B. Krisberg (1981) "Wider, Stronger and Different Nets: The Dialectics of Criminal Justice Reform". Journal of Research in Crime and Delinquency. 165-196.
- Avio, K. (1973) "An Economic Analysis of Criminal Corrections: The Canadian Case". Canadian Journal of Economics. 6: 164-178.
- Avio, K. and C., C. Scott. (1976) Property Crime in Canada : An Econometric Study, Toronto:University of Toronto Press.
- Avio, K. and C., C. Scott (1978) "The Supply of Property Offenses in Ontario : Evidence on the Deterrent Effect of Punishment". Canadian Journal of Economics. 11: 1-19.

- Bailey, W.C. (1966) "An Evaluation of 100 Studies of Correctional Outcome". Journal of Criminal Law, Criminology and Police Science, 57:153-160.
- Bailey, W.C. (1971) Models of Deterrence, Ph.D. Dissertation, Washington State University.
- Bailey, W.C., L.N. Gray, and D. Martin (1971) "To the Editor". Social Problems. 19: 284-289.
- Bailey, W.C., L.N. Gray and J.D. Martin (1971) "On Punishment and Crime (Chiricos and Waldo 1970) : Some Methodological Commentary". Social Problems. 19: 280-289.
- Bailey, W.C. and R.W. Smith (1972) "Punishment : Its Severity and Certainty". The Journal of Criminal Law, Criminology and Police Science. 63: 530-539.
- Bailey, W.C. (1973) "Murder and Capital Punishment: Some Further Evidence". Cleveland: The Cleveland State University, Department of Sociology.
- Bailey, W.C., J.D. Martin, and L.N. Gray (1974) "Crime and Deterrence : A Correlation Analysis". Journal of Research in Crime and Delinquency. 11: 124-143.
- Bailey, W.C. (1974) "Murder and the Death Penalty". The Journal of Criminal Law and Criminology. 65: 416-423.
- Bailey, W.C. (1975) "Murder and Capital Punishment : Some Further Evidence". American Journal of Orthopsychiatry . 45: 669-688.
- Bailey, W.C. (1976) "Rape and the Death Penalty : A Neglected Area of Deterrence Research". in Hugo Adam Bedau and Chester M. Pierce (eds.) Capital Punishment in the United States. New York: AMS Press Inc.. 336-358.
- Bailey, W.C. (1976) "Use of the Death Penalty v. Outrage at Murder : Some Additional Evidence and Considerations". Crime and Delinquency. 22: 31-39.
- Bailey, W.C. (1976) "A Multivariate Cross-Sectional and Longitudinal Analysis of the Deterrent Effect of the Death Penalty". Cleveland, Ohio: Cleveland State University.
- Bailey, W.C. (1976) "Certainty of Arrest and Crime Rates for Major Felonies : A Research Note". Journal of Research in Crime and Delinquency. 13: 145-154.

- Bailey, W.C. and R.P. Lott (1976) "Crime, Punishment and Personality : An Examination of the Deterrence Question". The Journal of Criminal Law and Criminology. 67: 99-109.
- Bailey, W.C. (1977) "Imprisonment vs. the Death Penalty as a Deterrent to Murder". Law and Human Behaviour. 1: 239-260
- Bailey, W.C. (1979-80) "A Multivariate Cross-sectional Analysis of the Deterrent Effect of the Death Penalty". Sociology and Social Research 64: 183-206.
- Bailey, W.C. (1980) "Deterrence and the Celerity of the Death Penalty : A Neglected Question in Deterrence Research". Social Forces 58: 1308-1333.
- Baldry, J. (1974) "Positive Economic Analysis of Criminal Behaviour". in A.J. Culyer (ed.) Economic Policies and Social Goals : Aspects of Choice, 171-198.
- Baldus, D.C. and J.W.L. Cole (1975-1976) "A Comparison of the Work of Thorsten Sellin and Isaac Ehrlich on the Deterrent Effect of Capital Punishment". The Yale Law Journal. 85: 170-186.
- Ball, J.C. (1955) "The Deterrence Concept in Criminology and Law". Journal of Criminal Law, Criminology and Police Science. 46: 347-354.
- Ball, J.C. (1967) "The Reliability and Validity of interview data obtained from 59 narcotic drug addicts". American Journal of Sociology. 72: 650-654.
- Ball, H.V. (1956) A Sociological Study of Rent Control and Rent Control Violations, Ph.D. Dissertation, University of Minnesota.
- Ball, H.V. and L.M. Friedman (1965) "The Use of Criminal Sanctions in the Enforcement of Economic Legislation : A Sociological View". Stanford Law Review. 17: 196-223.
- Banfield, E.C. (1968) The Unheavenly City, Boston: Little, Brown and Company.
- Bankston, W.B. and J.A. Cramer (1974) "Toward a Macro-Sociological Interpretation of General Deterrence". Criminology. 12: 251-280.
- Barber, R.N. and P.R. Wilson (1968) "Deterrent Aspects of Capital Punishment and its Effect on Conviction Rates : The Queensland Experience". Australian and New Zealand Journal of Criminology. 2: 100-108.

- Barlow, H.D. (1973) A Formal Theory of Crime and Punishment, Ph.D. Dissertation, University of Texas at Austin.
- Barmack, J.E. and D.E. Payne (1961) "The Lackland Accident Countermeasure Experiment". Highway Research Board Proceedings. 40: 513-522.
- Barmack, J.E. and D.E. Payne (1964) "The Lackland Accident Countermeasure Experiment". in William Haddon, Jr., E.A. Suchman, D. Klein (eds.) Accident Research : Methods and Approaches, New York:Harper & Row. 665-673.
- Barnard, E.E. (1977) "Review of Brody (1976) The Effectiveness of Sentencing". The British Journal of Criminology. 17: 291-293.
- Barnes, H.E. and N.K. Teeters (1951) New Horizons in Criminology, Englewood Cliffs: Prentice-Hall.
- Barnett, A. (1978) "Crime and Capital Punishment : Some Recent Studies". Journal of Criminal Justice . 6: 291-303.
- Barnett, H.C. (1976) "The Economics of Crime - A Comment". Review of Social Economy. 34: 81-87.
- Barnett, A. (1978) "The Deterrent Effect of Capital Punishment : Still Another View". Sloan School of Management, Massachusetts Institute of Technology.
- Barnett, A. (1981) "The Deterrent Effect of Capital Punishment : A Test of Some Recent Studies". Operations Research. 29: 346-370.
- Barnhart, C.L. and J. Stein (eds.) (1964) The American College Dictionary, New York: Random House.
- Barrow, C.R. (1978) Field Experimentation : One Approach to Contemporary Issues Concerning the Deterrence Doctrine, Ph.D. Dissertation, University of Arizona.
- Bartel, A.P. (1979) "Women and Crime : An Economic Analysis". Economic Inquiry. 17: 29-51.
- Bartell, T. and L.T. Winfree (1977) "Recidivist Impacts of Differential Sentencing Practices For Burglary Offenders". Criminology. 15: 387-396.
- Bartlett, J. (1955) Familiar Quotations, Thirteenth and Centennial Edition. Toronto: Little, Brown and Company.

- Barton, R. and B. Turnbull (1979) "Evaluation of Recidivism Data : Use of Failure Rate Regression Models". Evaluation Quarterly. 3: 629-642.
- Baxter, R. and C. Nuttall (1975) "Severe Sentences : No Deterrent to Crime?". New Society. 31: 11-13.
- Bean, F.D. and R.G.Cushing (1971) "Criminal Homicide, Punishment and Deterrence : Methodological and Substantive Reconsiderations". Social Science Quarterly. 52: 277-289.
- Beattie, R.H. (1960) "Problems of Criminal Statistics in the United States". Journal of Criminal Law, Criminology, and Police Science. 46: 179-186.
- Beccaria, C. (1764) An Essay on Crime and Punishments. Translated from the Italian in 1809. New York: Gould Publishers.
- Beccaria, C. (1809) Essay on Crimes and Punishments, New York: Stephen Gould.
- Beccaria, C. (1971) "On Crime and Punishment". in Stanley E. Grupp (ed.) Theories of Punishment, Bloomington: Indiana University Press, 117-137.
- Bechdolt, Jr., B.V. (1975) "Cross-Sectional Analysis of Socioeconomic Determinants of Urban Crime". Review of Social Economy. 33: 132-140.
- Becker, G.S. (1968) "Crime and Punishment : An Economic Approach". Journal of Political Economy. 76: 169-217.
- Becker, G.S. and W.M. Landes (eds.) (1974) Essays in the Economics of Crime and Punishment, New York: National Bureau of Economic Research.
- Becker, H. (1963) The Outsiders, New York: Free Press.
- Becker, H. (ed.) (1964) The Other Side, London: Collier-Macmillan Ltd.
- Bedau, H.A. (1971) "Deterrence and the Death Penalty : A Reconsideration". The Journal of Criminal Law, Criminology and Police Science. 61: 539-548.
- Bedau, H.A. (1970) "The Death Penalty as a Deterrent : Argument and Evidence". Ethics., 80: 205-217.
- Bedau, H.A. (1967) The Death Penalty in America , Revised Edition. Garden City: Doubleday.

- Bedau, H.A. (1970) "A Concluding Note". Ethics . 80: 205-217.
- Bedau, H.A. (1973) "The Future of Capital Punishment: A Problem for Law and the Social Sciences". Project Statement submitted to the Russell Sage Foundation. Tufts University, Medford, Massachusetts.
- Bedau, H.A. and E. Currie (1973) Social Science Research and the Death Penalty in America : An Interim Report, Massachusetts, Medford.
- Bedau, H.A. and C.M. Pierce (eds.) (1976) Capital Punishment in the United States, New York: AMS Press Inc..
- Bell, D. (1960) The End of Ideology, Revised Edition. New York: Free Press.
- Benn, S.I. and R.S. Peters (1972) "The Utilitarian Case for Deterrence". in Gerber and McAnany (eds.) Contemporary Punishment, Notre Dame: University of Notre Dame.
- Bennett, J.U. (1962) "After Sentence - What?". in R. C. Donnelly Criminal Law, New York: Collier-Macmillan.
- Bennett, J.V. (1965) "Our Penal System : Does it Deter Violence?". Waltham, Massachusetts: Brandeis University.
- Bentham, J. (1843) The Rationale of Punishment, edited by John Bowring, Tait, Edinburgh.
- Bentham, J. (1811) The Rationale of Punishment . Translated from the French in 1830. London: Robert Howard Publishers.
- Bentham, J. (1823) An Introduction to the Principles of Morals and Legislation. London: W. Pickering.
- Berelson, B. and G.A. Steiner (1964), Human Behavior: An Inventory of Scientific Findings, New York: Harcourt.
- Bergman, N.S. (1974) The Deterrent Effect of Criminal Justice Agencies on Felony Offenses, Ph.D. Dissertation, University of Southern California.
- Berkowitz, L. and J. Macaulay (1971) "The Contagion of Criminal Violence". Sociometry. 34: 238-260.
- Bertrand, A. (1967) Basic Sociology, New York: Appleton-Century-Crofts.
- Beutel, F.K. (1957) Some Potentialities of Experimental Jurisprudence as a New Branch of Social Science , Lincoln:University of Nebraska Press. 349-379.

- Beyleveld, D. (1979) "Deterrence Research as a Basis for Deterrence Policies". The Howard Journal of Penology and Crime Prevention. 18:135ff.
- Beyleveld, D. (1979) "Identifying, Explaining and Predicting Deterrence". British Journal of Criminology. 19: 205-224.
- Beyleveld, D. (1978) The Effectiveness of General Deterrents Against Crime : An annotated Bibliography of Evaluative Research, Cambridge: Cambridge University, Institute of Criminology.
- Beyleveld, D., A.E. Bottoms and P. Wiles (1979) "Is There Any Evidence That Hanging Deters Killers?". New Society. 48: 759-761.
- Biddle, W.C. (Chairman) (1968) Deterrent Effects of Criminal Sanctions, California: Progress Report of the Assembly Committee on Criminal Procedure.
- Biddle, W.C. (1969) "A Legislative Study of the Effectiveness of Criminal Penalties". Crime and Delinquency. 15: 354-358.
- Biderman, A.A. (1966) "Social Indicators and Goals". in R.A. Bauer (ed.) Social Indicators, Cambridge: The MIT Press.
- Biderman, A.A. (1967) "Surveys of Population Samples for Estimating Crime Incidence". The Annals of the American Academy of Political and Social Science. 374: 16-33.
- Biderman, A.A. and A.J. Reiss, Jr. (1967) "On Exploring the 'Dark Figure' of Crime". The Annals of the American Academy of Political and Social Science. 374: 2-15.
- Birmingham, R.L. (1970-1971) "A Model of Criminal Process : Game Theory and Law". Cornell Law Review.
- Black, A.H. (1960) Cited in O.H. Mowrer, Learning Theory and the Symbolic Processes, New York: John Wiley and Sons, Inc.
- Black, D.J. (1970) "Production of Crime Rates". American Sociological Review. 35: 733-748.
- Black, T. and T. Orsagh (1978) "New Evidence On the Efficacy of Sanctions as a Deterrent to Homicide". Social Science Quarterly. 58: 616-631.
- Blacker, C. (1968) "Primary Recidivism in Adult Men: Differences between Men on first and second prison sentence". British Journal of Criminology. 8: 130-169.
- Blackstone, W. (1768) Commentaries: Book Four, Oxford: Clarendon Press.

- Blake, J. and K. Davis (1964) "Norms, Values and Sanctions". in R. Farris (ed.) The Handbook of Modern Sociology, Chicago: Rand McNally.
- Blalock, H.M. (1971) "Aggregation and Measurement Error". Social Forces. 50: 151-165.
- Blalock, H.M. (1964) Causal Inferences in Nonexperimental Research, Chapel Hill: The University of North Carolina Press.
- Blalock, H.M. (1962) "Further Observations on Asymmetric Causal Models". American Sociological Review. 27: 542-545.
- Blalock, H.M. (1960) Social Statistics, New York: McGraw-Hill.
- Blalock, H.M. (1965) "Theory Building and the Statistical Concept of Interaction". American Sociological Review. 27: 542-545.
- Blalock, H.M. (1969) Theory Construction, Englewood Cliffs: Prentice-Hall.
- Blalock, H.M. (1967) Toward a Theory of Minority-Group Relations, New York: John Wiley and Sons, Inc.
- Blalock, H.M. and A.B. Blalock (eds.) (1968) Methodology in Social Research, New York: McGraw-Hill Book Company.
- Blau, P.M. (1960) "Structural Effects". American Sociological Review. 25: 178-193.
- Bloch, H. and G. Geis (1965) Man, Crime and Society, New York: Random House.
- Block, M.K. (1972) An Economic Analysis of Theft with Special Emphasis on Household Decisions under Uncertainty, Ph.D. Dissertation, Stanford University.
- Block, M.K. (1971) "Theft : An Econometric Approach". California: University of Santa Clara, Department of Economics.
- Block, M.K. (1972) "Theft : An Econometric Study". Caracas: Inter-American Congress on Criminology.
- Block, M.K. and J.M. Heineke (1974) "Multiattributed Preferences and Wealth Equivalents : The Case of Illegitimate Activity". California: University of Santa Clara, Graduate School of Business.

- Block, M.K. and J.M. Heineke (1975) "A Labour Theoretic Analysis of the Criminal Choice". The American Economic Review. 65: 314-325.
- Block, M.K. and R.C. Lind (1975) "An Economic Analysis of Crimes Punishable by Imprisonment". Journal of Legal Studies. 4: 479-492.
- Block, M.K. and R.C. Lind (1975) "Crime and Punishment Reconsidered". The Journal of Legal Studies. 4: 241-247.
- Block, R. and F.E. Zimring (1973) "Homicide in Chicago". Journal of Research in Crime and Delinquency. 10: 1-12.
- Blum, A.F. (1971) "Methods for Recognizing, Formulating, and Describing Social Problems". in E.O. Smigel (ed.) Handbook on the Study of Social Problems, Chicago: Rand McNally, 177-205.
- Blumberg, A.S. (1967) Criminal Justice. Chicago: Quadrangle Books.
- Blumstein, A. (1978) "Comment : Research on Deterrent and Incapacitative Effects of Criminal Sanctions". Journal of Criminal Justice. 6: 1-10.
- Blumstein, A. (1967) "Systems Analysis and the Criminal Justice System". Annals of the American Academy of Political and Social Science. 92-100.
- Blumstein, A., J. Cohen and D. Nagin (eds.) (1978) Deterrence and Incapacitation : Estimating the Effects of Criminal Sanctions on Crime Rates, Washington D.C.:National Academy of Sciences.
- Blumstein, A. and R.C. Larson (1967) "A Systems Approach to the Study of Crime and Criminal Justice". in P.M. Morse (ed.) Operations Research for Public Systems, Cambridge, Massachusetts:M.I.T. Press.
- Blumstein, A. and R.C. Larson (1969) "Models of a Total Criminal Justice System". Operations Research. 17: 199-232.
- Blumstein, A. and D. Nagin (1976-77) "The Deterrent Effect of Legal Sanctions on Draft Evasion". Stanford Law Review. 29: 241-276.
- Blumstein, A.,J. Cohen and W. Gooding (1983) "The Influence of Capacity on Person Population : A Critical Review of Some Recent Evidence". Crime and Delinquency. 1-51.

- Bohlke, R. (1961) "Social Mobility, Stratification Inconsistency, and Middle-Class Delinquency". Social Problems. 8: 351-363.
- Bondeson, U. (1975) "Survey Research as a Means to Explore General Deterrence". General Deterrence : A Conference on Current Research and Standpoints, June 2-4, 1975, Sweden:The National Swedish Council for Crime Prevention.
- Bookstaber, R. (1976) "Risk and the Structure of the Black Market for Addictive Drugs". American Economist . 20: 26-29.
- Bordua, D.J. (ed) (1967) The Police, New York: John Wiley and Sons, Inc.
- Borgatta, E.F. (ed.) (1969) Sociological Methodology: 1969, San Francisco: Jossey-Bass Publishers.
- Borkenstein M. and M. Klette (1971) The Perception of DWI Laws: A Study of the General Awareness and the Attitudes of Public and Official Groups Towards the Drinking Driving Laws, N.H.T.S.A. Washington D.C.:U.S. Department of Transportation.
- Boudon, R. (1965) "A Method of Linear Causal Analysis: Dependence Analysis". American Sociological Review. 30: 365-374.
- Bowers, W.J. (1974) "A Causal Framework for the Analysis of Deterrence and Related Processes". in R. Akers and E. Sagarin (eds.) Crime Prevention and Social Control, New York:Praegar. 22-38.
- Bowers, W.J. (1971) "Deterrence, Retribution or Repression : The Relationship between Crime and Punishment in the case of Homicide". Northeastern University:R.K. Stearn's Study.
- Bowers, W.J. (1974) Executions in America , Lexington:Lexington Books.
- Bowers, W.J. (1964) Student Dishonesty and Its Control in College, New York:Columbia University, Bureau of Applied Social Research.
- Bowers, W.J. (1974) "The American Experience with the Moratorium on Executions and the Mandatory Death Penalty". Executions in America, Lexington Massachusetts:Lexington Books. 137-163.
- Bowers, W.J. and G.L. Pierce. (1975) "Deterrence : Brutalisation, or Nonsense?" New York:Columbia University.

- Bowers, W.J. and G.L. Pierce. (1975-76) "The Illusion of Deterrence in Isaac Ehrlich's Research on Capital Punishment" The Yale Law Journal, 85:187-208.
- Bowers, W.J. and R.G. Salem. (1972) "Severity of Formal Sanctions as a Repressive Response to Deviant Behavior". Law and Society Review. 7: 427-441
- Bowers, W.J. and R.G. Salem (1970) "Student Disciplinary Administration". in A.S.Knowles (ed.) Handbook of College and University Administration, New York: McGraw Hill.
- Boydell, C.L. and C.F. Grindstaff (1971) "Public attitudes toward legal sanctions for drug and abortion offences". Canadian Journal of Criminology and Corrections . 13: 209-232.
- Boydston, J.E. (1975) San Diego Field Interrogation : Final Report, Washington D.C.:The Police Foundation.
- Boydston, J.E., M.E. Sherry and N.P Moelten (1977) Patrol Staffing in San Diego, Washington D.C.:The Police Foundation.
- Boyer, R, B.M. Cormier and B. Grad (1966) "Statistics on Criminal Processes". Canadian Journal of Corrections. 8: 104-120.
- Braithwaite, R.B. (1953) Scientific Explanation, Cambridge: Cambridge University Press.
- Brannigan, A. (1984) Crimes, Courts and Corrections, Toronto: Holt, Rinehart and Winston of Canada, Ltd..
- Breitenecker, L.H. (1963) "The Effects of the Austrian Legislation Concerning Drunken Driving". Alcohol and Road Traffic : 3rd International Conference on Alcohol and Road Traffic, London, September 3-7, London:British Medical Association.
- Brewer, M.B., D.T. Campbell and W.D. Crane (1970) "Testing a single factor model as an alternative to the misuse of partial correlation in hypothesis-testing research". Sociometry. 33: 1-11.
- Brier, S.S. and S.E. Fienberg (1980) "Recent Econometric Modeling of Crime and Punishment". Evaluation Review 4: 147-191.
- Bright, J.A. (1969) The Beat Patrol Experiment, Home Office Police Research and Development Branch. Report No.7/69.

- Brodbeck, M.(ed.) (1968) Readings in the Philosophy of the Social Sciences, New York: MacMillan.
- Brodbeck, M. (1968) "Freedom, Determinism, and Morality" in M. Brodbeck (ed.) Readings in the Philosophy of the Social Sciences, London: Collier-Macmillan. 669-677.
- Brodbeck, M. (1968) "Models and Measurement" in M. Brodbeck (ed.) Readings in the Philosophy of the Social Sciences, London: Collier-Macmillan. 573-578.
- Brodbeck, M. (1968) "Social Facts, Social Laws, and Reduction". in M. Brodbeck (ed.) Readings in the Philosophy of the Social Sciences, London: Collier-Macmillan. 239-244.
- Brody, S. (1978) "Research into the Aims and Effectiveness of Sentencing". The Howard Journal of Penology and Crime Prevention. 17: 133-148.
- Brooker, F. (1971) "The Deterrent Effect of Punishment". Criminology. 9: 469-490.
- Brown, C.E. (1975) "Evaluative Research in Policing - The Kansas City Experience" The Police Chief. 40-45.
- Brown, D.W. (1978) "When does a Tipping Effect Occur?". Social Forces. 57: 671-682.
- Brown, D.W. and S.L. McDougal. (1977) "Non-Compliance with Law : A Utility Analysis of City Crime Rates". Social Science Quarterly.
- Brown, F.K. (1969) Experimental Control of Cheating : A Study of the Effects of Punishment, Surveillance, and Verbal Instructions, Ph.D. Dissertation:University of North Carolina at Chapel Hill.
- Brown, W.W. and M.O. Reynolds (1973) "Crime and 'Punishment' : Risk Implications". Journal of Economic Theory . 6: 508-514.
- Bruner, J.S. M.R. Olivier, and P.M. Greenfield (eds.) (1966) Studies in Cognitive Growth, New York: John Wiley and Sons, Inc.
- Buckle, S.R. and L.G. Buckle (1977) Bargaining for Justice : Case Disposition and Reform in the Criminal Courts, New York: Praeger Publishers.
- Buffman, P.C. (1973) "Prison Killings and Death Penalty Legislation". The Prison Journal. 53: 49-57.

- Buikhuisen, W. (1974) "General Deterrence : Research and Theory". Abstracts on Criminology and Penology. 14: 285-298.
- Bullock, H.A. (1955) "Urban Homicide in Theory and Fact". Journal of Criminal Law, Criminology, and Police Science. 45: 565-575.
- Bunge, M. (1959) Causality, Cambridge: Harvard University Press.
- Bunge, M. (1964) The Critical Approach to Science and Philosophy, London: The Free Press of Glencoe.
- Bunge, M. (1973) Method, Model and Matter, Boston: D. Reidal Publishing Company.
- Burkett, S.R. and E.L. Jensen (1975) "Conventional Ties, Peer Influence, and the Fear of Apprehension : A Study of Adolescent Marijuana Use". The Sociological Quarterly . 16: 522-533.
- Burkett, S. and W. Carrithers (1980) "Adolescents' Drinking and Perceptions of Legal and Informal Sanctions". Journal of Studies on Alcohol. 41: 839-853.
- Burkhat, C., A. Cramer and R. Voas (1972) Evaluation Report - Alcohol Safety Action Projects 1971, National Highway Traffic Safety Administration.
- Bursik, R.J. Jr. (1980) "The Dynamics of Specialization in Juvenile Offenses". Social Forces. 53: 851-864.
- Burton, R.V. (1971) "On the Misuse of Partial Correlations in Hypothesis-testing Research". Sociometry. 34: 261-262.
- Cain, G.G. and H.W. Watts. (1970) "Problems in Making Policy Inferences from the Coleman Report" American Sociological Review, 35:228-242.
- Cairns, H. (1949) Legal Philosophy from Plato to Hegel, Baltimore: The John Hopkins Press.
- Caldwell, R. (1944) "The Deterrent Influence of Corporal Punishment upon Prisoners who have been Whipped" American Sociological Review, 9:171 -177.
- Caldwell, R.G. (1965) Criminology, New York: Ronald Press.
- California Assembly on Criminal Procedure. (1968) "Part one--Survey of Knowledge of Criminal Penalties." Sacramento: State of California.

- California Assembly Committee on Criminal Procedure. (1968) Deterrent Effects of Criminal Sanctions, Sacramento:Assembly of the State of California.
- Cameron, M.O. (1964) The Booster and the Snitch : Department Store Shoplifting, New York:The Free Press.
- Campbell, D.T. (1957) "Factors Relevant to the Validity of Experiments in Social Settings." Psychological Bulletin, 54:297-312.
- Campbell, D.T. (1958) "Common Fate, Similarity, and Other Indices of the Status of Aggregates of Persons as Social Entities" Behavioural Science, 3:14-25.
- Campbell, D.T. (1969) "Reforms as Experiments" American Psychologist, 24:409-429.
- Campbell, D.T. and K.N. Clayton. (1961) "Avoiding Regression Effects in Panel Studies of Communications Impact" Studies in Public Communications, 3:99-118.
- Campbell, D.T. and D.W. Fish. (1959) "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix." Psychological Bulletin, 56:81-105.
- Campbell, D.T. and H.L. Ross. (1968) "The Connecticut Crackdown on Speeding: Time-Series Data in Quasi-Experimental Analysis" Law and Society Review, 3:33-54.
- Campbell, D.T. and J.C. Stanley. (1963) "Experimental and Quasiexperimental Designs for Research or Teaching" in N.L. Gage (ed.) Handbook of Research on Teaching, Chicago:Rand McNally and Company. 171-246.
- Campbell, D.T. and J.C. Stanley. (1966) Experimental and Quasi-Experimental Designs for Research, Chicago:Rand McNally and Company.
- Campion, D.R., S.J. (1964) "Does the Death Penalty Protect State Police?" in H.A. Bedau (ed.) The Death Penalty in America, New York:Doubleday & Co., Inc.
- Campion, D.R., S.J. (1955) "The State Police and the Death Penalty" Minutes of Proceedings and Evidence No. 20, Ottawa:Queen's Printer, 729-735.
- Cantril, H. (1949) "Towards a Scientific Morality" Journal of Psychology, 27:363-376.

- Cardarelli, A.P. (1968) "An Analysis of Police Killed in Criminal Action: 1961-1963" The Journal of Criminal Law, Criminology and Police Science, 3:447-453.
- Cardoza, B.N. (1928) The Paradoxes of Legal Sciences, Westport:Greenwood Press.
- Carlson, K. (1982) Mandatory Sentencing: The Experience of Two States. Office of Development, Testing, and Dissemination, National Institute of Justice, Department of Justice.
- Carlston, K.S. (1962) Law and Organization in World Society, Urbana:University of Illinois Press.
- Carlsson, C. and K. Karlsson. (1970) "Age, Cohorts, and the Generation of Generations" American Sociological Review, 35:710-718.
- Carney, F.J. and A.L. Fuller. (1969) "A Study of Plea Bargaining in Murder Cases in Massachusetts." Suffolk University Law Review, 3:292-307.
- Carr, B.R., H. Goldberg and C.M.L. Farbar. (1974) The Breathalyser Legislation, An Inferential Evaluation, Ottawa:Ministry of Transportation.
- Carr, B.R., H. Goldberg and C.M.L. Farbar. (1975) "The Canadian Breathalyser Legislation : An Inferential Evaluation" in S. Israelstam and S. Lambert (eds) Alcohol, Drugs and Traffic Safety, Toronto:Addiction Research Foundation of Ontario, 679-687.
- Carr-Hill, G.A. and R.A. Carr-Hill (1972) "Reconviction as a Process". British Journal of Criminology, 12:35-43.
- Carr-Hill, R.A. and N.H. Stern (1974) Analysis of Criminal Statistics, Seminar Press.
- _____ (1979) Crime, the Police and Criminal Statistics: An Analysis of Official Statistics for England and Wales Using Econometric Methods, London: Academic Press.
- _____ (1973) "An Econometric Model of the Supply and Control of Recorded Offenses in England and Wales" Journal of Public Economics, 2: 289-318.
- _____ (1971) Variations in Recorded Statistics of Police Work, Offender Behavior, and Judicial Activity in England and Wales in the Early 1970's, mimeo. (original complete version of 2. I.(b).12.).

- Cartwright, D.S. (1969) "Ecological Variables" in E.F. Borgatta (ed.) Sociological Methodology, San Francisco:Jossey-Bass Inc. 155-218.
- Cartwright, D.S. and K.I. Howard. (1966) "Multivariate Analysis of Gang Delinquency: I. ecological influences" Multivariate Behavioural Research, 1:321-371.
- Cavan, R. (1960) Criminology, New York Times:Thomas Y. Crowell.
- Chaiken, Jan M. (1977) What's Known about Deterrent Effects of Police Activities? Santa Monica, Ca.: The Rand Corporation.
- Chaiken, Jan M., Michael W. Lawless and Keith A. Stevenson (1974) The impact of Police Activity on Crime: Robbery on the New York City Subway System, New York: The Rand Corporation.
- _____ (1974) "The Impact of Police Activity on Subway Crime" Urban Analysis, 2: 173-205.
- Chambers, Lee W., Robin S. Roberts and Cameron C. Voelker (1975) "The Epidemiology of Traffic Accidents and the Effect of the 1969 Breathalyser Law in Canada" In S. Israeltam and S. Lambert (eds.) Alcohol, Drugs and Traffic Safety, Toronto: Addiction Research Foundation of Ontario. Pp.689-698.
- Chambliss, William J. (1969) "The Impact of Punishment on Compliance with Parking Regulations." In William J. Chambliss (ed.) Crime and the Legal Process New York: McGraw-Hill. Pp. 388-393.
- Chambliss, W.J. (1966) "The Deterrent Influence of Punishment" Crime and Delinquency, 12:70-75.
- Chambliss, W.J. (1967) "Types of Deviance and the Effectiveness of Legal Sanctions" Wisconsin Law Review , 3:703-717.
- Chapman, Jeffery I. (1976) "An Economic Model of Crime and Police: Some Empirical Results" Journal of Research in Crime and Delinquency, 13: 48-63.
- Chapman, Jeffery I. (1971) "Crime in Medium-sized Cities: An Econometric Study", Unpublished Manuscript, University of California at Berkley.
- Chapman, Jeffery I. (1973) The Impact of Police on Crime and Crime on Police: A Synthesis of the Economic and Ecological Approaches , Institute for Government and Public Affairs, Los Angeles: University of California.

- Chapman, Jeffery, I., Werner Z. Hirsch and Sidney Sonenblum
(1973) A Police Service Production Function, Institute of
Government and Public Affairs, Los Angeles: University of
California.
- Chapman, Jeffery, I., Werner Z. Hirsch and Sidney Sonenblum
(1975) "Crime Prevention, the Police Production Function
and Budgeting" Public Finance, 30: 197-215.
- Chappell, Duncan, Gilbert Geis and Robert Hardt (1972)
"Explorations in Deterrence and Criminal Justice" Criminal
Law Bulletin, 3: 514-538.
- Chauncey, Robert (1975) "Certainty, Severity and Skyjacking"
Criminology, 12:447-473.
- Chein, I. (1947) "Towards a Scientific Morality" Journal of
Psychology, 25:235-238.
- Chelimsky, Eleanor (1976) High Impact Anti-Crime Program:
National Level Evaluation: Final Report, The Mitre
Corporation, Washington: Law Enforcement Assistance
Administration.
- Chesney-Lind, M. (1973) "Judicial Enforcement of the Female Sex
Role: The Family Court and Family Delinquency" Issues in
Criminology, 8: 51-59.
- Chilton, R.J. (1968) "Persistent Problems of Crime Statistics"
in S.Dintz and W.C. Reckless (eds) Critical Issues in the
Study of Crime, Boston:Little, Brown, and Company. 89-95.
- Chilton, R. (1982) "Analyzing Urban Crime Data: Deterrence and
the Limitations of Arrests per Offence Ratios: Criminology
19: 590-607.
- Chiricos, T.G. and G.P. Waldo. "Punishments and Crime: An
Examination of Some Empirical Evidence" Social Problems,
18:200-217.
- Cho, Yong Hyo (1972) "A Multiple Regression Model for the
Measurement of the Public Policy Impact on the Big City
Crime" Policy Sciences 3: 435-455.
- Christensen, R. (1967) "Projected percentage of U.S. Population
with criminal arrest and conviction records" Washington
D.C.:U.S. Government Printing Office. 216-228.

- Christiansen, Karl O. "On General Prevention from an Empirical Viewpoint" In General Deterrence: A Conference on Current Research and Standpoints, June 2-4, 1975. Stockholm: The National Swedish Council for Crime Prevention, Research and Development Division, Report No. 2.
- Christie, G.C. (1964) "Vagueness and Legal Language" Minnesota Law Review, 48:885-911.
- Church III, Albert Marion, (1971) An Econometric Model of Crime in California, Ph.D. Dissertation, Claremont Graduate School and University Centre.
- Church, ALbert (1970) "Econometric Study of Economy Related Crimes" Unpublished Manuscript. Santa Barbara: University of California
- Church, R.M. (1963) "The Varied Effects of Punishment on Behaviour" Psychological Review, 70:369-402.
- Church, Thomas (1976) "Plea-Bargains, Concessions and the Courts: Analysis of a Quasi-Experiment" Law and Society Review, 10: 377-401.
- Churchman, C.W. and P. Ratoosh. (1959) Measurement:Definitions and Theories, New York:John Wiley and Sons, Inc.
- Clark, A.L. and J.P. Gibbs. (1965) "Social Control: A Reformulation" Social Problems, 12:398-415.
- Clark, G. (1969) "Black Tuesday in Montreal: What Happens when the Police Strike" New York Times Magazine , 16:45ff.
- Clark, G. (1969) "What Happens When the Police Strike" In William J. Chambliss (ed.) Criminal Law in Action, Santa Barbara: Hamilton. Pp.440-449.
- Clark, R. (1971) Crime in America, New York: John Simon and Schuster.
- Clark, R.V.G. (1966) "Approved School Boy Absconders and Corporal Punishment" British Journal of Criminology, 6: 364-375.
- Claster, D.S. (1967) "Comparison of risk perception between delinquents and non-delinquents" Journal of Criminal Law, Criminology, and Police Science, 58:80-86.
- Clausen, A. (1980) "The Policy Perspective: Social Problems as Investment Opportunities" Social Problems, 27: 526-539.

- Clear, Todd R. (1976) "Crime and Utility Maximization: A Note on Danziger and Wheeler" Review of Social Economy, 34: 83-85.
- Clear, T.R. and D.M. Barry (1983) "Some Conceptual Issues in Incapacitating Offenders" Crime and Delinquency, October: 529-545.
- Clinard, Marshall B. (1952) The Black Market New York: Rinehart and Co. Inc.
- Cloninger, Dale O. (1977) "Deterrence and the Death Penalty: A Cross-Sectional Analysis" Journal of Behavioral Economics, 6.
- Cloninger, Dale O. (1975) "The Deterrent Effect of Law Enforcement:" An Evaluation of Recent Findings and Some New Evidence" American Journal of Economics and Sociology, 34: 323-335.
- Cobb, William E. (1973)"Theft and the Two Hypotheses" In S. Rottenberg (ed.) The Economics of Crime and Punishment, Washington: American Enterprise Institute for Public and Policy Research.
- Cobun, L.S. (1983-84) "The Insanity Defense: Effects of Abolition Unsupported by a Moral Consensus". American Journal of Law and Medicine, 9: 471-500.
- Coddington, F.J.O. (1971) "Problems of punishment" in S.E. Grupp(ed.) Theories of Punishment, Bloomington: Indiana University Press. 333-353.
- Cohen, A.K. (1966) Deviance and Control, Englewood Cliffs:Prentice-Hall.
- Cohen, John (1970) "Uncertainty and Risk-Taking in Crime" Bulletin of the British Psychological Association, 23: 293-296.
- Cohen, L.J. and D.C. Paris (1982) "Ethical Issues In Goal Conflict: A Continuing Problem for Policy Analysts" Western Political Quarterly, 35: 65-80.
- Cohen, M.R. (1950) Reason and the Law , Glencoe:The Free Press.
- Cohen, M.R. and E. Nagel, (1934) An Introduction to Logic and Scientific Method, New York: Harcourt and Brace.
- Cohen, J.S. (1964) Introduction to Mathematical Sociology, Glencoe, Illinois:The Free Press.

- Coleman, J.S. (1964), Introduction to Mathematical Sociology. Glencoe, Illinois: The Free Press.
- Conklin, J.E. (1971) "Dimension of Community Response to the Crime Problem" Social Problems, 18:373-385.
- Conklin, J.E. (1972) Robbery and the Criminal Justice System. Philadelphia: Lippincott.
- Conley, Bryan Charles (1972) The Impact of Deterrence, Economic Opportunities and Social Status on Regional Variations in Juvenile Property Crime Rates, Ph.D. Dissertation. University of California at Santa Monica.
- Cook, P. (1977) "Punishment and Crime: A Critique of Current Findings Concerning The preventive Effects of Punishment" Law and Contemporary Problems, 41: 164-204.
- Cook, P.J. (1980) "Research in Criminal Deterrence: Forging the Groundwork for the Second Decade" Crime and Justice, 2: 211-268.
- Cook, P.J. (1980) "Reducing Injury and Death Rates in Robbery", Policy Analysis, 6: 21-45.
- Coombs, C.H., (1967), "Thurstone's Measurement of Social Values Revisted Forty Years Later." Journal of Personality and Social Psychology, 6:85-91.
- Cooper, H.H.A. (1973) "Crime Control and the Deterrence Perspective." Criminology, 11:161-182.
- Cormier, B.M., R. Boyer, G. Morf, M. Kennedy, P. Boulanger, C. Barriga, and J. Cvejic. (1971) "Behaviour and Ageing : Offenders Aged 40 and over." Laval Medical , 42: 15-21.
- Costner, H.L. (1969) "Theory, Deducton, and Rules of Correspondence." American Journal of Sociology, 75:245-263.
- Costner, H.L. (ed.) (1971) Sociological Methodology, San Francisco:Jossey-Bass Inc.
- Costner, H.L. and R.K. Leik. (1964) "Deductions from Axiomatic Theory." American Sociological Review , 29:819-835.
- Cousineau, D.F. (1968) "Rationality and Social Policy" Unpublished M.A. Dissertation. Edmonton:Department of Sociology, The University of Alberta.

- Cousineau, D.F. (1973) "A Critique of the Ecological Approach to the Study of Deterrence" The Social Science Quarterly, 54:152-158.
- Cousineau, D.F. (1974) "Causality and Deterrence Research" Paper Presented to the American Society of Criminology. Chicago, Illinois.
- Cousineau, D.F. (1976) General Deterrence and Crime: An Analysis, Ph.D. Dissertation. Edmonton: Department of Sociology, The University of Alberta.
- Cousineau, D.F. and J.E. Veevers. (1972)a "Incarceration as a Response to Crime" Canadian Journal of Criminology and Corrections, 14:10-31.
- Cousineau, D.F. and J.E. Veevers. (1972)b "Juvenile Justice : an Analysis of the Canadian Young Offenders Act." in C. Boydell (ed.) Toronto:Holt, Rinehart, and Winston.
- Cousineau, F.D. and S.N. Verdun-Jones (1979) "Evaluating Research into Plea-Bargaining in Canada and the United States: Pitfalls Facing the Policy Makers" Canadian Journal of Criminology, 21: 293-309.
- Cox, K.R. (1969) "Voting in the London Suburbs : A Factor Analysis and Causal Model." in M. Dogan and S. Rokkan (eds) Quantitative Ecological Analysis in the Social Sciences, Cambridge:The MIT Press.
- Cramton, R.C. (1969) "Driver Behavior and Legal Sanctions : a Study of Deterrence" Michigan Law Review, 67:421-454.
- Cressey, D.R. (1953) Other People's Money , Glencoe, Illinois:The Free Press.
- Cressey, D.R. (1957) "The State of Criminal Statistics" National Probation and Parole Association Journal, 3:230-241.
- Cressey, D.R. (1966) "Crime" in R. Merton an R.A. Nisbet (eds) Contemporary Social Problems, New York:Harcourt.
- Crowthers, C. (1969) "Crime, Penalties, and Legislatures." Annals of the American Academy of Political and Social Sciences, 381:147-158.
- Crutchfield, R., M. Geerken and W. Gove (1982) "Crime Rate and Social Integration" Criminology, 20:467-478.

- Cullen, F., R. Mathers, G. Clark and J. Cullen (1983) "Public Support for Punishing White-Collar Crime: Blaming the Victim Revisited?" Journal of Criminal Justice 11: 481-493.
- Dahl, R.A. (1965) "Cause and Effect in the Study of Politics" in Daniel Lerner (ed.) Cause and Effect, New York: The Free Press.
- Dahlberg, G. (1948) "A New Method in Crime Statistics Applied to the Population of Sweden" Journal of Criminal Law and Criminology, 39:327-341.
- Dahrendorf, R. (1958) "Toward a Theory of Social Conflict" The Journal of Conflict Resolution, 2:170-183.
- Dann, R.H. (1935) "The Deterrent Effects of Capital Punishment" Friend's Social Science Bulletin, 29:1-48.
- Dann, R.H. (1952) "Abolition and Restoration of the Death Penalty in Oregon" The Annals of the American Academy of Political and Social Science, 284:110-114.
- Darlington, R.B. (1968) "Multiple Regression in Psychological Research and Practice" Psychological Bulletin, 69:161-132.
- Davis, F.J. and R. Stevens (eds). (1975) The Collective Definition of Deviance, New York: The Free Press.
- Dawson, R.O. (1969) Sentencing: The Decision as to Type, Length, and Conditions of Sentence, Boston: Little Brown and Company.
- De Charms, R. (1965) "The 'Original Pawn' Variable in Person Perception" Sociometry, 28:
- Dession, G.H. (1962) "Justice After Conviction" in R.C. Donnelly, J. Goldstein, and R.D. Schwartz (eds) Criminal Law, New York: The Free Press.
- Deutsch, S. and Malmborg, C. (1981) "A Comparison of Sentencing Strategies Between States" Evaluation Review 5: 307-324.
- Deutsch, S.J. (1978) "Deterrence Effectiveness Measurement" Criminology, 16: 115-131.
- Devlin, K. (1970) Sentencing Offenders in Magistrates Courts, London: Sweet and Maxwell.
- Devlin, P. (1965) The Enforcement of Morals, New York: Oxford University Press.

- Diamond, B.L., M.D. (1975) "Murder and the Death Penalty : A Case Report" Americal Journal of Orthopsychiatry , 45: 712-722.
- Dinitz, S. and W.C. Reckless (eds.) (1968) Critical Issues in the Study of Crime, Boston: Little, Brown, and Company.
- Dogan, M. and S. Rokkan (eds) (1969) Quantitative Ecological Analysis in the Social Sciences, Cambridge: The MIT Press.
- Doleschal, E. (1969) "The Deterrent Effect of Legal Punishment" Information Review on Crime and Delinquency , 1: 1-17.
- Doleschal, E. (1978) "Social Forces and Crime" Criminal Justice Abstracts 10: 395-410.
- Doleschal, E. (1982) "The Dangers of Criminal Justice Reform" Criminal Justice Abstracts, 14: 133
- Donnelly, R.C., J. Goldstein, and R.D. Schwartz (eds) Criminal Law, New York: The Free Press.
- Douglas, J.D. (1967) The Social Meanings of Suicide, New Jersey: Princeton University Press.
- Draper, A. (1972) Death Penalty, New York:Macmillan and Company.
- Dray, W.H. (1964) Philosophy of History , Englewood Cliffs: Prentice-Hall.
- Ducasse, C.J. (1960) "Causality: Critiques of Hume's Analysis" in E.H. Madden (ed.) The Structure of Scientific Thoughts, Boston:Houghton Mifflin Company.
- Duncan, O.D. (1966) "Path Analysis Sociological Examples" American Journal of Sociology, 72: 2-16.
- Dunham, B. (1947) Man Against Myth, Boston: Little, Brown, and Company.
- Dunn, C. (1981) "Changes in Delinquency Prevalence: Prediction Problems and Decision Logic in Longitudinal Studues on Delinquency" Criminal Justice and Behavior 8: 439-470.
- Durkheim, E. (1895) The Rules of Sociological Method Translated by S.A. Soloway and V.H. Mueller Glencoe: The Free Press, 1960.
- Durkheim, E. (1915) The Elementary Forms of the Religious Life, London: Allen and Unwin.

- Edwards, A.L. (1957) Techniques of Attitude Scale Construction, New York:Appleton-Century-Crofts.
- Ehrlich, I. (1970) Participation in Illegitimate Activities, Ph.D. Dissertation, Columbia University.
- Ehrlich, I. (1972) "The Deterrent Effect of Criminal Law Enforcement" The Journal of Legal Studies, 1:159-276.
- Ehrlich, I. (1973) "Participation in Illegitimate Activities : A Theoretical and Empirical Investigation" Journal of Political Economy, 81:521-565.
- Ehrlich, I. (1975) "The Deterrent Effect of Capital Punishment : A Question of Life and Death" The American Economic Review, 65:397-417.
- Ehrlich, I. (1975-76) "Deterrence : Evidence And Inference" The Yale Law Journal, 85:209-227.
- Ehrlich, I. (1975-75) "Rejoinder" The Yale Law Journal, 85:368-369.
- Ehrlich, I. (1977) "Capital Punishment and Deterrence : Some Further Thoughts and Additional Evidence" Journal of Political Economy, 85:741-788
- Ehrlich, I. and J.C. Gibbons. (1977) "On the Measurement of the Deterrent Effect of Capital Punishment and the Theory of Deterrence" Journal of Legal Studies, 6:35-50.
- Ehrlich, I.(In Co-operation with R. Mark (1977) "Fear of Deterrence; A Critical Evaluation of the 'Report of the Panel on Research on Deterrent and Incapacitative Effects'" Journal of Legal Studies, 6:293-316.
- Ehrlich, I. (1977) "The Deterrent Effect of Capital Punishment : Reply" American Economic Review, 67:452-458.
- Ehrlich, I. and R. Mark. (1978) "Deterrence and Economics : A Perspective on Theory and Evidence" in J.M. Yinger and S.J. Cutler (eds) Major Social Issues, New York:Free Press.
- Ehrlich, I. (1979) "The Economic Approach to Crime : A Preliminary Assessment" in S.L. Messinger and E. Bittner (eds) Criminology Review Yearbook, 1:25-60.
- Ehrlich, I. (1981) "On the Usefulness of Controlling Individuals : An Economic Analysis of Rehabilitation, Incapacitation, and Deterrence". The American Economic Review 71: 307-322.

- Eisenstein, J. and H. Jacob (1977) Felony Justice : An Organizational Analysis of Criminal Courts, Boston: Little Brown and Co..
- Ekland-Olson, S., J. Lieb and L. Zurcher (1984) "The Paradoxical Impact of Criminal Sanctions : Some Microstructural Findings". Law and Society Review. 18: 159-178.
- Ekman, G. and L. Sjoberg. (1965) "Scaling" in P.R. Farnsworth (ed.) Annual Review of Psychology, Palo Alto:Stanford Annual Reviews, 16:463-464
- Ellis, D.P. (1971) "The Hobesian Problem of Order: A Critical Appraisal of the Normative Solution" American Sociological Review, 36:692-703.
- English, H.B. and A.C. English. (1958) A Comprehensive Dictionary of Psychological Terms, New York:Green and Company.
- Enker, A. (1967) "Perspectives on Plea Bargaining" Appendix A in President's Commission on Law Enforcement and the Administration of Justice, Task Force Report, Washington, D.C.:U.S. Government Printing Office.
- Ennis, P.H. (1967) Criminal Victimization in the United States:A Report of A National Survey, U.S. President's Commission on Law Enforcement and Administration of Justice Field Survey II. Washington:U.S. Government Printing Office.
- Ericson, R. (1982) Reproducing Order : A Study of Police Patrol Work, Toronto: University of Toronto Press.
- Erikson, K.T. (1966) Wayward Puritans. New York: John Wiley and Sons, Inc.
- Erickson, M.L. and J.P. Gibbs (1974) "Certainty and Severity of Legal Punishment:Two Alternative Conceptions" unpublished manuscript.
- Erickson, M.L. and J.P. Gibbs (1978) "Objectives and Perceptual Properties of Legal Punishment and the Deterrence Doctrine". Social Problems. 25: 253-264
- Erickson, M.L. and J.P. Gibbs (1979) "Community Tolerance and Measures of Delinquency" Journal of Research in Crime and Delinquency. 16:55-79.
- Erickson, M.J. and J.P. Gibbs (1979) "On the Perceived Severity of Legal Penalties". The Journal of Criminal Law and Criminology. 70: 102-116.

- Erickson, M.L. and J.P. Gibbs (1973) "The Deterrence Question : Some Alternative Methods of Analysis". Social Science Quarterly . 54: 534-551.
- Erickson, M.L. and J.P. Gibbs (1976) "Further Findings on the Deterrence Question and Strategies for Further Research" . Journal of Criminal Justice. 4: 175-189.
- Erickson, M.L. and J.P. Gibbs (1978) "Objective and Perceptual Properties of Legal Punishment and the Deterrence Doctrine". Social Problems. 25: 253-264.
- Erickson, M.L. and J.P. Gibbs (1979) "On the Perceived Severity of Legal Penalties". The Journal of Criminal Law and Criminology. 70: 102-116.
- Erickson, M.L. and J.P. Gibbs (1975) "Specific versus General Properties of Legal Punishment and Deterrence". Social Science Quarterly. 56: 390-397.
- Erickson, M.L., J.P. Gibbs and G.F. Jensen (1977) "The Deterrence Doctrine and the Perceived Certainty of Legal Punishments". American Sociological Review. 42: 305-317.
- Erickson, P.G. (1976) "Deterrence and Deviance : The Example of Cannabis Prohibition". The Journal of Criminal Law and Criminology. 67: 222-232.
- Eron, L.D., M.M. Lefkowitz, L.R. Huesmann, and L.O. Walder (1972) "Does Television Violence Cause Aggression?". American Psychologist. 27: 253-263.
- Erskine, H. (1970) "The Polls : Capital Punishment". Public Opinion Quarterly. 34: 290-307.
- Etzioni, A. and E.W. Lehman (1967) "Some Dangers in 'Valid' Social Measurement". The Annals of the American Academy of Political and Social Science. 373: 1-5.
- Eubank, E.E. (1932) The Concepts of Sociology, New York:D.C. Heath and Company.
- Ezorsky, G. (ed.) (1972) Philosophical Perspectives on Punishment, Albany:State University of New York Press.
- Farrington, D.P. and R.F. Kidd. (1977) "Is Financial Dishonesty a Rational Decision?" British Journal of Social and Clinical Psychology, 16: 139-146.
- Fattah, E.A. (1972) A Study of the Deterrent Effect of Capital Punishment with Special Reference to the Canadian Situation, Ottawa: Information Canada.

- Fattah, E.A.(1974) "A Study Paper on Deterrence", Ottawa: Confidential Report to the Law Reform Commission.
- Fattah, E.A. (1974) "The Canadian Experiment with the Abolition of the Death Penalty" in W.J. Bowers, Executions in America, Massachusetts: Lexington Books. 121-135.
- Fattah, E.A. (1977) "Deterrence: A Review of the Literature" Canadian Journal of Criminology and Corrections, 19: 1-119.
- Fattah, E.A. (1981) "Is Capital Punishment a Unique Deterrent?" A Dispassionate Review of Old and New Evidence". Canadian Journal of Criminology, 23: 291-313.
- Favreau, G. (1965) Capital Punishment, Ottawa: Queen's Printer.
- Feeley, M. (1970) "Coercion and Compliance: A New Look at an Old Problem" Law and Society Review, 4: 505-519.
- Feeney, F. and A. Weir (1974) The Prevention and Control of Robbery: A Summary. Davis: University of California, Center on the Administration of Criminal Justice.
- Feest, J. (1968) "Compliance with Legal Regulations : Observation of Stop Sign Behaviour" Law and Society Review, 2: 447-461.
- Feigl, H. (1953) "Notes on Causality" In H. Feigl and M. Bordbeck (eds), Readings in the Philosophy of Science, New York: Appleton-Century-Crofts.
- Feld, B. (1981) "Legislative Policies Toward the Serious Juvenile Offender" Crime and Delinquency 27: 497-521
- Feldman, M.P (1977) Criminal Behaviour: A Psychological Analysis, London: John Wiley and Sons. 72-78.
- Feldman, M.P. (1966) "Decision Taking in a Hypothetical Criminal Situation by Approved School and Secondary Modern School Boys", University of Birmingham:Unpublished Manuscript.
- Felson, M. and M. Gottfredson (1984) "Social Indicators of Adolescent Activities near Peers and Parents". Journal of Marriage and The Family, 116: 709-714.
- Ferdinand, T.N. (1967) "The Criminal Patterns of Boston since 1849" American Journal of Sociology, 73: 84-99.
- Ferdinand, T.N. (1970) "Demographic Shifts and Criminality : An Inquiry" British Journal of Criminology, 10: 169-175.

- Ferdinand, T.N. (1972) "Politics, the Police, and Arresting Policies in Salem, Massachusetts, Since the Civil War" Social Problem, 19: 572-588.
- Ferguson, G.A. (1959) Statistical Analysis in Psychology and Education, Toronto: McGraw-Hill Book Company.
- Feyerabend, P.K. (1970) "Against Method : Outline of an Anarchistic Theory of Knowledge" In M. Radner and S. Winokur (eds), Minnesota Studies in the Philosophy of Sciences, IV: 17-130.
- Firey, W. (1969) "Limits to Economy in Crime and Punishment" Social Science Quarterly, 50: 72-77.
- Fishbein, M. and I. Ajzen. (1973), "Attribution of Responsibility: A Theoretical Note". Journal of Experimental Social Psychology, 9:148-153.
- Fisher, F.M. (1980) "Multiple Regression in Legal Proceedings". Columbia Law Review, 80: 702-736.
- Fleisher, B.M. (1966) The Economics of Delinquency, Chicago: Quadrangle Books.
- Ford, R.E. and Wachtel, D. (1976) "Deterrence, Drugs and New York States's 1973 Controlled Substances Act", Arizona: Paper Presented at the American Society of Criminology.
- Forst, B.E. (1976) "Participation in Illegitimate Activities : Further Empirical Findings" Policy Analysis, 2.
- Forst, B.E. (1976-77) "The Deterrent Effect of Capital Punishment : A Cross-State Analysis of the 1960's" Minnesota Law Review, 61:743-767.
- Fowler, H.W. and F.G. Fowler (eds). (1964) The Concise Oxford Dictionary, Oxford: The Clarendon Press.
- Fox, B. (1967) "Deterrents to Drinking and Driving in Alcohol Misusers" in J. Selzer et al(eds) Prevention of Highway Injury, Michigan: Highway Safety Research Institute. 51-62.
- French, J.R.P., Jr., H.W. Morrison and G. Levinger. (1960) "Coercive Power and Forces Affecting Conformity" Journal of Abnormal and Social Psychology, 61: 93-101.
- Frese, R. and N. Heller. (1970) "Measuring Auto-Theft and the Effectiveness of Auto-Theft Control Programs", Detroit:Address at 38th Meeting of the Operations Research Society of America.

- Friedman, L.S. (1979) "The Use of Multiple Regression Analysis to Test For A Deterrent Effect of Capital Punishment: Prospects and Problems" in S.L. Messinger and E. Bittner (eds), Criminology Review Yearbook Volume One, Beverly Hills: Sage Publications. 61-87.
- Fuller, L.L. (1964) The Morality of the Law, London: Yale University Press.
- Gage, N.L. (1963) Handbook of Research on Teaching, Chicago: Rand McNally.
- Gallagher, Frances (1978) "Appendix : An Annotated Bibliography of Deterrence Evaluations, 1970-1975" in Blumstein, Cohen and Nagin (eds.) Deterrence and Incapacitation : Estimating the Effects and Criminal Sanctions on Crime Rates, National Academy of Sciences, Washington, D.C. : National Academy of Sciences, 174-186 .
- Gardiner, J.A. (1969) Traffic and the Police: Variations in Law-Enforcement Policy, Cambridge: Harvard University Press.
- Gastil, R. (1971) "Homicide and a regional culture of violence" American Sociological Review. 36:412-427.
- Geerken, Michael and Walter R. Gove (1977) "Deterrence, Overload and Incapacitation : An Empirical Evaluation" Social Forces. 56:424-447.
- Geerken, Michael and Walter R. Gove (1975) "Deterrence : Some Theoretical Considerations" Law and Society Review. 9:497-513.
- Gehlke, C. and R. Biekell. (1934) "Certain effects of grouping upon the size of the correlation coefficients in census tracts material" Journal of the American Statistical Association. 29:169-170.
- Geis, G. (1955) "Pioneers in Criminology: Jeremy Bentham (1748-1832)" The Journal of Criminal Law, Criminology, and Police Science. 46:159-171.
- Gendreau, P. and M. Liepciger (1978) "The Development of a Recidivism Measure and its Application in Ontario" Canadian Journal of Criminology and Corrections, 20: 3-17.
- Gendreau, P. and C. T. Surridge (1978) "Controlling Gun Crimes : The Jamaican Experience" International Journal of Criminology and Penology. 6:43-60.

- Gerber, R. and P. McAnany (1967) Punishment: Views, Explanations and Justifications, Notre Dame: University of Notre Dame Press.
- Gerber, R. and P.D. McAnany (1972) Society, Crime and Criminal Punishment: Views, Explanations and Justifications. London: University of Notre Dame Press.
- Gibbons, D.C. (1968) Society, Crime and Criminal Careers. Englewood Cliffs: Prentice-Hall.
- Gibbons, D.C. (1969) "Crime and Punishment: A Study in Social Attitudes" Social Forces. 47:391-397.
- Gibbs, J.P. (1966) "Sanctions" Social Problems. 14:147-159.
- Gibbs, J.P. (1968A) "Crime, Punishment, and Deterrence" Southwestern Social Science Quarterly. 48:515-530.
- Gibbs, J.P. (1968B) "Reply to Osborne" Social Science Quarterly. 49:161-162.
- Gibbs, J.P. (1973) "Comment on Llad Phillips: The Case for Deterrence" in S. Rottenberg (ed.) (1973) Washington D.C. : American Enterprise Institute for Policy Research, 103-116.
- Gibbs, J.P. (1975) Crime, Punishment and Deterrence , Elsevier: New York.
- Gibbs, J.P. (1976) "Punishment: The Controversy Goes On" The Journal of Criminal Law and Criminology. 67:244-248.
- Gibbs, J.P. (1977) "Social Control, Deterrence and Perspectives on Social Order" Social Forces, 56:408-423.
- Gibbs, J.P. (1978) "Preventive Effects of Capital Punishment Other than Deterrence" Criminal Law Bulletin. 14:34-40.
- Gibbs, J.P. (1978) "Another Rush to Judgment on the Deterrence Question" Criminology. 16:22-30
- Gibbs, J.P. (1979) "Assessing the Deterrence Doctrine" American Behavioural Scientist, 22: 653-677.
- Gibbs, J.P. and M.L. Erickson (1976) "Capital Punishment and the Deterrence Doctrine" in H.A. Bedau and C.M. Pierce (eds.) Capital Punishment in the United States, New York: AMS Press Inc.. 229-313.

- Giedymin, J. (1964) "Strength, confirmation, compatibility" in M. Bunge (ed.) The Critical Approach to Science and Philosophy London: The Free Press, 52-60.
- Giffen, P.J. (1965) "Rates of Crime and Delinquency" in W.T. McGrath (ed.) Crime and Its Treatment in Canada Toronto: The Macmillan Company, 59-90.
- Giffen, P.J. (1966) "The Revolving Door: A Functional Interpretation" The Canadian Review of Sociology and Anthropology. 3:154-166.
- Glaser, D. (1964) The Effectiveness of a Prison and Parole System. New York: The Bobbs-Merrill Company
- Glaser, D. (1971) Social Deviance. Chicago: Markham Publishing Company.
- Glaser, D. and J. Stratton (1966) "Measuring Inmate Change in Prison" in D.R. Cressey (Ed.) The Prison, New York: Holt, Rinehart, and Winston.
- Glaser, D. (1976) "A Response to Bailey: More Evidence on Capital Punishment as Correlate of Tolerance for Murder", Crime and Delinquency. 22:40-43.
- Glaser, D. and M.S. Zeigler (1974) "Use of the Death Penalty v. Outrage at Murder" Crime and Delinquency 20: 329-338.
- Glass, G.V. (1968) "Analysis of Data on The Connecticut Speeding Crackdown as a Time-Series Quasi-Experiment", Law and Society Review, 3:55-76.
- Goffman, E. (1963) Stigma. Englewood Cliffs: Prentice-Hall.
- Gold, M. (1970) Delinquent Behavior in an American City, Belmont: Brooks/Cole Publishing Co.
- Goldberg, I. (1977) "True Crime Rates : The Deterrence Hypothesis Revisited". Stanford: Unpublished.
- Goldberger, A.S. (1970) "On Boudon's Method of Linear Causal Analysis" American Sociological Review 35:97-101.
- Goldschmid, H.I. (1972) An Evaluation of the Present and Potential Use of Civil Money Penalties as a Sanction by Federal Administrative Agencies, Washington D.C. Committee on Compliance and Enforcement of the Administration Conference of the U.S.
- Goodman, L.A. (1959) "Some Alternatives to Ecological Correlation" American Journal of Sociology, 64:610-626.

- Goodman, L.H. "A Study of the Deterrent Value of Crime Prevention Measures as Perceived by Criminal Offenders" Recorded as Current Project P1031 by the Information Center of the National Council on Crime and Delinquency.
- Goodman, L.H., D. Miller and P. DeForrest. (1966) A Study of the Deterrent Value of Crime Prevention Measures Perceived by Criminal Offenders Bureau of Social Science Research Inc. Washington, Information Centre of the National Council of Crime and Delinquency, Current Project P1031.
- Gould, L.C. (1962) "Who Defines Delinquency: a Comparison of Self-Reported and Officially Reported Indices of Delinquency for Three Racial Groups" Social Problems, 16:325-336.
- Gouldner, A.W. (1962) "Anti-Minotaur: The Myth of a Value-Free Sociology" Social Problems, 9:199-213.
- Goyer, J. (1972) Capital Punishment, Ottawa: Information Canada.
- Graham-Green, C.J. (1965) Criminal Costs Including Legal Aid, London: Butterworths and Company.
- Grala, C. and C. McCauley. (1976) "Counselling Truants Back to School: Motivation Combined with a Program for Action" Journal of Counselling Psychology, 23:166-169.
- Grasmick, H.G. (1981) "The Strategy of Deterrence Research: A Reply to Greenberg". The Journal of Criminal Law and Criminology, 72: 1102-1108.
- Grasmick, H.G. and L. Appleton. (1977) "Legal Punishment and Social Stigma: A Comparison of Two Deterrence Models" Social Science Quarterly, 58:15-28.
- Grasmick, H. and D. Green (1980) "Legal Punishment, Social Disapproval and Internalization as Inhibitors of Illegal Behaviour" Journal of Criminal Law and Criminology, 71: 325-335.
- Grasmick, H. and D. Green (1981) "Deterrence and the Mentally Committed" The Sociological Quarterly, 22: 1-14.
- Grasmick, H.G. and M. Herman, Jr. ((1976) "Deterrence Theory Approach to Socioeconomic/Demographic Correlates of Crime" Social Science Quarterly, 57:608-617.
- Graves, W. F. (1964) "The Deterrent Effect of Capital Punishment in California" in H.A. Bedau (ed.) The Death Penalty in America, New York: Anchor Books, Doubleday & Co. 322-332.

- Graves, W.F. (1956) "A Doctor Looks at Capital Punishment" Journal of Medical Arts and Sciences, 10:137-141.
- Gray, L.N. and J.D. Martin. (1969) "Punishment and Deterrence : Another Analysis of Gibbs' Data" Social Science Quarterly, 50:389-395.
- Green, E. (1968) "The Effects of Stimulus Arrangements on Normative Judgment in the Award of Penal Sanctions" Sociometry, 31: 125-136.
- Green, E. (1961) Judicial Attitudes in Sentencing, London: Macmillan and Company.
- Greenberg, D.F. (1977) "Crime Deterrence Research and Social Policy" in S.S. Nagel (ed.) Modeling the Criminal Justice System, Beverly Hills: Sage Publications.
- Greenberg, D.F. and D. Humphries (1980) "The Cooptation of Fixed Sentencing Reform" Crime and Delinquency, 26: 206-225.
- Greenwood, E. (1945) Experimental Sociology. New York: Kings Crown Press.
- Greenspan, E. (1982) "The Role of the Defence Lawyer in Sentencing" In C. Boydell and I. Connidis (eds.) The Canadian Criminal Justice System, Toronto: Holt, Rinehart and Winston of Canada.
- Greenwald, H. (1983) "Capital Punishment for Minors: An Eighth Amendment Analysis" Journal of Criminal Law and Criminology, 74: 1471-1517.
- Greenwood, M.J. and W.J. Wadycki. (1973) "Crime Rates and Public Expenditures for Police Protection: Their Interaction" Review of Social Economy, 31:138-151.
- Greenwood, M.J. and W.J. Wadycki. (1975) "Crime Rates and Public Expenditure for Police Protection: A Reply" Review of Social Economy 33:81-85.
- Gregory, F.C. (1970) Corrective Measures Used by Faculties as a Deterrent to Drug Abuse Among Students of Related Schools in California, Ph.D. Dissertation: University of Southern California.
- Griffiths, C.T. (1981) "Law Enforcement - Juvenile Court Relations: The Impact on Decision-Making" Criminal Justice Review 6: 6-13.

- Griffiths, C.T., J. Klein and S.N. Verdun-Jones (1980) Criminal Justice in Canada: An Introductory Text, Vancouver: Butterworths.
- Grosman, B. (1974a) "The Discretionary Enforcement of the Law" In C. Boydell, P. Whitehead and C. Grindstaff (eds.) The Administration of Criminal Justice in Canada Toronto: Holt, Rinehart and Winston of Canada. Pp. 84-92.
- Grosman, B. (1974b) "The Prosecutor: Discretion and Pre-trial Practices" In C. Boydell, P. Whitehead and C. Grindstaff (eds.) The Administration of Criminal Justice in Canada Toronto: Holt, Rinehart and Winston of Canada. Pp. 186-198.
- Grosman, B. (1982) "The Prosecutor" In C. Boydell and I. Connidis (eds.) The Canadian Criminal Justice System, Toronto: Holt, Rinehart and Winston of Canada.
- Gross, L. (ed) (1959) Symposium on Sociological Theory, New York: Harper and Row.
- Grupp, S.E. (1974) "Deterrence and the Marijuana Smoker" in R.L. Akers and E. Sagarin (eds) Crime Prevention and Social Control, Praeger, New York:39-50.
- Grupp, S.E. (ed) (1971) Theories of Punishment, Bloomington: Indiana University Press.
- Grupp, S.E., M.J. McCain and R.L. Schmitt. (1971) "Marijuana Use in a Small College : A Midwest Example" The International Journal of Addictions, 6:463-485.
- Guillot, E.E. (1952) "Abolition and Restoration of the Death Penalty in Missouri" The Annals of The American Academy of Political and Social Sciences. 284:105-109.
- Gurvitch, G. (1945) "Social Control" in G. Gurvitch and W.E. Moore (eds) Twentieth Century Sociology, New York: The Philosophical Library.
- Gurvitch, G. (1953) Sociology of Law London: Routledge and Kegan Paul Ltd..
- Gurvitch, G. and W.E. Moore (eds) (1945) Twentieth Century Sociology, New York: The Philosophical Library.
- Gusfield, J. (1963) Symbolic Crusade. Urbana: The University of Illinois Press.
- Hadden, J. K. and E. F. Borgatta. (1965) American Cities: Their Social Characteristics, Chicago: Rand McNally.

- Haddon, W. and Klein, D., (1965) "Assessing the Efficacy of Accident Countermeasures" Traffic Quarterly.
- Hagan, J. (1975) "The Social and Legal Construction of Criminal Justice: A Study of the Pre-sentencing process". Social Problems, 22: 20-37.
- Hagan, J.L. (1972) "The Labelling Perspective, the Delinquent, and the Police: A Review of the Literature." The Canadian Journal of Criminology and Corrections, 14: 150-165.
- Hagedorn, R. (1967) "A Cross-cultural assessment of official reactions to deviant behavior." Journal of Criminology, 7: 381-393.
- Haldane, L.H., D.H. Elliott, and P.C. Whitehead. (1972) "Particularism in the sentencing of Juvenile Delinquents." C.L. Boydell, C.F. Grindstaff, and P.C. Whitehead (eds) Deviant Behavior and Societal Reaction, 231-243. Toronto: Holt, Rinehart and Winston.
- Hall, J. (1945) "Criminology." in G.E. Gurvitch and H. Moore, (eds), Twentieth Century Sociology, New York: 360-365.
- Halloran, J.D. (1963) "Capital Punishment : Facts and Figures," in Mannes Tidmarsh, J.D. Halloran, K.J. Connolly, Capital Punishment, 41-105.
- Handy, R. and P. Kurtz, (1964) A Current Appraisal of the Behavioral Sciences, Great Barrington: Behavioral Research Council.
- Hann, R.G. (1976) "Deterrence and the Death Penalty: A Critical review Of the Research of Isaacs Ehrlich" Research Division of the Solicitor General of Canada, Ottawa, Ontario.
- Hann, R.G., (1972) "Decision-making in the Criminal Courts: a Simulation" Centre of Criminology, University of Toronto.
- Hannan, M.T., (1970) Problems of Aggregation and Disaggregation in Sociological Research, Chapel Hill: Institute for Research in Social Science, University Of North Carolina.
- Hannan, M.T., (1971) Aggregation and Disaggregation in Sociology, Lexington: D.C. Heath and Company.
- Hannan, T.H., (1974) "Criminal Behaviour and the Control of Crime: An Economic Perspective" Federal Reserve Philadelphia, 2-9.

- Harris, C. and S. Moitra (1978) "Improved Statistical Techniques for the Measurement of Recidivism" Journal of Research in Crime and Delinquency, 15: 194-213.
- Harris, J.R. (1970) "On the Economics of Law and Order" Journal of Political Economy. 78: 165-174.
- Harris, R. (1969) The Fear of Crime, New York: Praeger.
- Hart, H.L.A. (1957) "Murder and the Principles of Punishment: England and the United States" Northwestern University Law Review, 52: 446-447.
- Hart, H.L.A. (1961) The Concept of Law, London: The Oxford University Press.
- Hart, H.L.A. (1963) Law, Liberty, and Morality, Stanford: Stanford University Press.
- Hart, H.L.A. (1968) Punishment and Responsibility: Essays in the Philosophy of Law, New York: Clarendon Press.
- Hart, H.L.A. (1971) "Prolegomenon to the Principles of Punishment" in S.E. Grupp (ed) Theories of Punishment, Bloomington: Indiana University Press, 354-378.
- Hart, H.L.A. and A.M. Honore. (1959), Causation in the Law, Fair Lawn: Oxford Press.
- Hart, H. (ed) (1946) Punishment: For and Against, New York: Hart Publishing Company.
- Hartley, E., M. Rosenbaum, and A. Snadowsky. (1967) "Crime as seen by Psychotherapists" Police, 12: 77-80.
- Hatt, P. (1946) "The Concept of Natural Area" American Journal of Sociology, 11: 423-427.
- Havard, J.D.J. (1975) "Terrence: The problematic postulate" Australian and New Zealand Journal Of Criminology, 132-148.
- Hawkins, D. "Black and White Homicide Differentials: Alternatives to an InAdequate Theory" Criminal Justice and Behavior 10: 407-440.
- Hawkins, G. (1969) "Punishment and Deterrence: The Educative, Moralising and Habitutive Effects" The Wisconsin Law Review, 550-565.

- Hawkins, G. (1971) "Punishment and Deterrence: The Educative, Moralizing, and Habitulative" in S.E.Grupp (ed) Theories of Punishment, Bloomington: Indiana University Press.
- Hawkins, R.O. (1973) "Who called the cops? Decisions to Victimization" Law and Society Review, 7: 427-444.
- Hawley, A.H. (1950) Human Ecology, New York: The Ronald Press.
- Heider, F. (1958) The Psychology of Interpersonal Relations New York: John Wiley and Sons.
- Heineke, J.M. (1975) " A Note on Modelling the Criminal Choice Problem" Journal of Economic Theory, 10: 113-116.
- Heise, D.R. (1969) " Problems in Path Analysis and Casual Inference" in E.F. Borgatta (ed) Sociological Methodology, Jossey-Bass Publishers: 38-74.
- Heise, D.R. (1970) " Causal Inference from Panel Data" in E.F. Borgatta and G.W. Bohrnstedt(eds) Sociological Methodology, Jossey-Bass Publishers: 3-27.
- Heisler, G.H. (1972) An Experimental Investigation of Ways to Deter Deviants, Ph.D. Dissertation, Southern Illinois University.
- Heisler, G.H. (1974) "Ways to Deter Law Violators: Effects of Levels of Threat and Vicarious Punishment on Cheating" Journal of Consulting and Clinical Psychology, 42: 577-582.
- Henry, F. (1978) "Imprisonment as a General Deterrent" Criminal Law Quarterly, 21: 69-81.
- Henshel, R.L. (1972) " Deterrence and Knowledge of Sanctions" Paper presented to the Eastern Sociological Association, Boston, Massachusetts. Henshel, R.L. (1972) "Deterrence and Knowledge of Sanctions" in R.L. Akers and E. Sagarin (eds) Crime Prevention and Social Control, Praeger, New York: 51-64.
- Henshel, R.L. (1976) Reacting to Social Problems, Longman Canada.
- Henshel, R.L. (1978) "Considerations on the Deterrence and System Capacity Models" Criminology, 16: 35-46.
- Henshel, R.L. and Carey, S.H. (1972) "Deviance, Deterrence, and Knowledge of Sanctions" Paper read at the Annual meeting of the Eastern Sociological Association, Boston,Massachusetts.

- Henshel, R.L. and Carey, S.H. (1975) "Deviance, Deterrence and Knowledge of Sanctions" in R.L. Henshel and R.A. Silverman (eds) Perception in Criminology, New York: Columbia University Press, 54-73.
- Henshel, R.L. and R.A. Silverman (1975) "Perception and Criminal Process". The Canadian Journal of Sociology, 1: 33-47.
- Henshel, R.L. and Silverman, R.A. (1975) Perception in Criminology, New York: Columbia University Press.
- Heumann, M. (1975) "A Note on Plea Bargaining and Case Pressure" Law and Society Review, 9: 515-528.
- Heumann, M. and C. Loftin (1979) "Mandatory Sentencing and the Abolition of Plea Bargaining: The Michigan Felony Firearm Statue". Law and Society Review, 13: 401-407.
- Hills, J.P. and Kochendorfer, R.A. (1969) "Knowledge of Peer Success and Risk of Detection as Determinants of Cheating" Developmental Psychology, 1:231-238.
- Hillinger, C. (1968) "A Generalization of the Principle of Casuality which makes it Applicable to Evolutionary Systems" Methodology and Science, 1: 143-147
- Hills, S.L. (1971) Crime, Power and Morality, Scranton: Chandler Publishing Company.
- Hirsch, W.Z. (1977) "Production, Cost, and Expenditure Determinant Functions of Police Services" in S.S. Nagel (ed.) Modeling the Criminal Justice System, Beverly Hills, Sage Publications: 127-141.
- Hirschi, T. and H.C. Selvin (1967) Delinquency Research: an Appraisal of Analytic Methods, New York: The Free Press.
- Hobbes, T.. (1955) Leviathan, New York: Liberal Arts Press.
- Hodges, E.F. (1971) "Crime nPrevention by the Indeterminant Sentence Law" American Journal of Psychiatry, 128: 291-295.
- Hoefnagels, G.P. (1966) "Others than Offenders"(mimeo) Nederlandse Economische Hogeschool, Faculteit der Rechtsgeleerdheid.
- Hoенack, S.A., Kurdle, R.T. and Sjoquist, D.L. (1978) "Some Difficulties in the Estimation of the Deterrent Effect of Capital Punishment" Policy Analysis.
- Hoffman, A. (1971) Steal This Book, New York: Pirate Editions.

- Hogarth, J. (1971) Sentencing as a Human Press, Toronto: University of Toronto Press.
- Hoiberg, E.O. and Cloyd, J.S. (1971) "Definition and Measurment of Continuous Variation in Ecological Analysis" American Sociologic]l Review, 36: 65-74.
- Hollinger, R. and J. Clark (1983) "Deterrence in the Workplace: Preceived Certainty, Perceived Severity and Employee Theft" Social Forces 62: 398-418.
- Holtmann, A.G. and Yap, L. (1978) "Does Punishment Pay?" Public Finance, 33: 90-97.
- Homans, G. (1961) Social Behavior: Its Elementary Forms, New York: Harcourt.
- Honderich, T. (1969) The Supposed Justifications, London Hutchison and Company.
- Hood, R. and R. Sparks (1970) Key Issues in Criminology, World University Library. New York: McGraw-Hill.
- Hook, S. (ed) (1959) Determinism and Freedom, New York: Collier Books.
- Horton, P.B. (1973) "Problems in Understanding Criminal Motives" in S.Rottenberg (ed) The Economics of Crime and Punishment, American Enterprise Institute for Public Policy Research, Washington, D.C.
- Horton, P.B. and Hunt, C.L. (1964) Sociology, Toronto: McGraw-Hill Company.
- Horton, P.B. and Leslie, R. (1965) The Sociology of Social Problems, New York: Appleton Century-Crofts.
- Hume, D. (1740) A Treatise on Human Nature , Edited by L.A. Shelby-Bigge, Oxford: Clarendon Press, 1888.
- Hume, D. (1874) A Treatise on Human Nature, London: Longhams, Green, and Company.
- Hume, D. (1955) Enquiry Concerning Human Understanding, New York: Liberal Arts Press.
- Hume, D. (1964) A Treatise On Human Nature, New York: Doubleday.
- Huff, C.R. and J.M. Slaturn (1980) "Police Employment and Suburban Crime" Criminology 17: 461-470.

- Hyman, H.H. (1955) Survey Design and Analysis, New York: The Free Press.
- Isaac, A.G. (1976) A Descriptive Study of Certain Methods and Theories of Crime Prevention and Deterrence and their Relationship to Education and Training in Criminal Justice Programs, Ph.D. Dissertation: Michigan State University.
- Israelstam, S. and S. Lambert, (1974) Alcohol, Drugs, and Traffic Safety, Proceedings of the Sixth International Conference on Alcohol, Drugs, and Traffic Safety, Toronto.
- Jackson, D.N. and S. Messick (Eds). (1967) Problems in Human Assessment. New York: McGraw-Hill.
- Jaffary, S.K., (1963) Sentencing of Adults in Canada, Toronto: University of Toronto Press.
- Jayewardene, C.H., (1972) "The Canadian Movement Against the Death Penalty". " Canadian Journal of Criminology and Corrections". 14:366-390.
- Jayewardene, C.H., (1972) "Homicide and Punishment: a study in deterrence". Paper read at the Annual Meeting of the Learned Societies. Montreal, Quebec.
- Jayewardene, C.H.S. (1973) "Life or Death - Society's Reaction to Murder". Canadian Journal of Criminology and Corrections. 15:265-273.
- Jayewardene, C.H., (1974) "Capital Punishment in Canada". Unpublished Manuscript, Ministry of the Solicitor General of Canada, Ottawa.
- Jayewardene, C.H.S. (1977) The Penalty of Death: The Canadian Experiment. Toronto: Lexington Books.
- Jeffery, C.R. (1965) "Criminal Behaviour and Learning Theory". The Journal of Criminal Law, Criminology and Police Science. 56:294-300.
- Jeffery, C.R. (1978) "Punishment and Deterrence: A Psychobiological Statement". Paper presented at the annual meeting of the American Society of Criminology. Dallas, Texas.
- Jensen, A.R. (1969) "Counter Response". Journal of Social Issues. 25:219-222.
- Jensen, G.F. (1969) " ' Crime Doesn't Pay ' : Correlates of a Shared Misunderstanding" Social Problems. 17:189-201.

- Jensen, G.F., Erickson, M.L. and Gibbs, J.P. (1978), "Perceived Risk of Punishment and Self-Reported Delinquency". Social Forces. 57:57-58.
- Johnson, E.H. (1964) Crime, Correction, and Society. Homewood:The Dorsey Press.
- Johnson, N.G. (1975) The Perception and Acceptance of Risk in Criminals and Non-Criminals as a Function of Ethical and Group Influence, Ph.D. Dissertation, Wayne State University.
- Johnson, P., Levy, P. and Voas, R. (1976) "A Critique of the Paper 'Statistical Evaluation of the Effectiveness of Alcohol Safety Action'". Accident Analysis and Prevention. 8:67-77.
- Johnson, R.E. (1979), Juvenile Delinquency and Its Origins : An Integrated Theoretical Approach. New York:Cambridge University Press.
- Jonassen, C.T. (1949) "A re-evaluation and critique of the logic and some methods of Shaw and McKay". American Sociological Review. 14:608-617.
- Jones, C. and E.A., (1973) "Attribution of fault to a rape victim as a function of respectability of the victim". Journal of Personality and Social Psychology. 26:415-419.
- Jones E.T. (1973) "Evaluating Everyday Policies: Police Activity and Crime Incidence" Urban Affairs Quarterly , 8:267-279.
- Jones, J.B. (1978) "Prosecutors and the Disposition of Criminal Cases: An Analysis of Plea Bargaining Rates" Journal of Criminal Law and Criminology 69: 402-412.
- Jones, L. (1974) The Effectiveness of Suspension Practices in Deterring Student Misbehavior in Two Big City High Schools, Ph.D. Dissertation. Kansas City: University of Missouri.
- Kakalik, J.S. and S. Wildhorn, (1971) Aids to Decision Making in Police Patrol. The Rand Corporation.
- Kant, I. (1781) Critique of Pure Reason. Abridge Edition, translated by N.K. Smith. New York: Modern Library, 1958.
- Kaplan, A. (1965)"Noncausal Explanation". in Daniel Lerner (ed). Cause and Effect. 145-155.

- Kaplan, H. (1964) The Conduct of Inquiry: Methodology of Behavioral Science. San Fransisco: Chandler Publishing Company.
- Katzman, M.T. (1968) "The Economics of Defense Against Crime in the Streets" Land Economics. 14: 431-440.
- Kelling, G.L., T. Pate, D. Dieckman and C.E. Brown. (1974) The Kansas City Preventive Patrol Experiment: A Summary Report. Police Foundation, Washington, D.C.
- Kelling, G.L., T. Pate, D. Dieckman and C.E. Brown. (1974) "The Kansas City Preventive Patrol Experiment: A Summary Report", The Aldine Crime and Justice Annual, 1974. 196-236.
- Kelling, G.L., T. Pate, D. Dieckman and C.E. Brown. (1975) The Kansas City Preventive Patrol Experiment: A Technical Report. Police Foundation, Washington, D.C.
- Kelly, G.A., (1955) The Psychology of Personal Constructs. New York: Norton.
- Kelsen, H. (1957) What Is Justice?. Berkeley: University of California Press.
- Kerlinger, F.N. (1967) Foundations of Behavioral Research. New York: Holt, Rinehart and Winston.
- King, D.R. (1978) "The Brutalisation Effect: Execution Publicity and the Incidence of Homicide in South Carolina" Social Forces. 57: 683-687.
- Kitschinsky, B. (1968) "Knowledge and Attitude Regarding Legal Phenomena in Denmark" in Nils Christie (ed.) Scandinavian Studies in Criminology. 2:
- Kitsuse, J.I. and A.V. Cicourel (1963) "A Note on the Uses of Official Statistics" Social Problems 11: 131-139.
- Kleck, G. (1979) "Capital Punishment, Gun Ownership, and Homicide" American Journal of Sociology. 84: 882-910.
- Klein, B. (1973) "Comment on Llad Phillips, 'The Case for Deterrence'" In Simon Rottenberg (ed) The Economics of Crime and Punishment. American Enterprise Institute for Policy Research, Washington, D.C. 103-116.
- Klein, D. and J. Waller (1970) Causation, Culpability and Deterrence in Highway Crashes, U.S.A Department of Transportation, Automobile Insurance and Compensation Study.

- Klein, L., B. Forst and V. Filatov (1978) "The Deterrent Effect of Capital Punishment : An Assessment of the Estimates" In Blumstein, Cohen and Nagin (eds), Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates. National Academy of Sciences, Washington, D.C.
- Klette, H. (1975) "Some Minimum Requirements for Legal Sanctioning Systems with Special Emphasis on Detection" in General Deterrence: A Conference on Current Research and Standpoints The National Swedish Council for Crime Prevention , Sweden, Research and Development Division. 2:91-100.
- Knoeber, C.R. (1978) "Penalties and Compensation for Auto Accidents" Journal of Legal Studies 2: 263-278.
- Knudten, R.D. (1970) Crime in a Complex Society . Homewood, Illinois: The Dorsey Press.
- Kobbervig, W. J., I. Inverarity and P Londerdale (1981) "Deterrence and the Death Penalty: A Comment on Phillips" American Journal of Sociology, 88: 161-164.
- Kobrin, S. (1973) The Deterrent Effectiveness of Criminal Justice Sanction Strategies. Ph.D.Dissertation, The University of Southern California.
- Kobrin, S. (1975) "Toward a Sociology of Deterrence" in General Deterrence: A Conference on Current Research and Standpoints, June 2-4, 1975. The National Swedish Council for Crime Prevention, Sweden, Research and Development Division 2: 154-178.
- Kobrin, S. , S.G. Lubeck, E.W. Hansen and R.L. Yeaman The Deterrent Effectiveness of Criminal Justice Sanction Strategies, Public Systems REsearch Institute, University of S. California, Los Angeles.
- Kohn, P.M. and G.W. Mercer (1971) "Drug Use, Drug Use Attitudes, and the Authoritarianism-Rebellion dimension". Journal of Health and Social Behaviour. 12: 125-131.
- Kraus, A.S., R. Steele, W.R. Ghent, and M.G. Thompson (1970) "Pre-driving Identification of Young Drivers with a High Risk of Accidents". Journal of Safety Research 26: 55-66.
- Kraus, J. (1976) "Juvenile Delinquency and the Psychology of General Deterrence" International Journal of Social Psychology. 22: 112-119.

- Kraus, J. (1974) "Threat of Punishment and the Potential Offender" The Australian and New Zealand Journal of Sociology. 10: 61-63.
- Krauss, H.H., R.D Coddington and D.J. Smeltzer (1971) "Ethical Risk Sensitivity of Adolescents in Legal Difficulty: First Contact and Repeat Contact Groups" Journal of Social Psychology. 83: 213-217.
- Krauss, H.H., G.J. Mozdierz and F.J. Macchitelli (1971) "Ethical Risk-Taking Among Alcoholics" Quarterly Journal of Studies on Alcohol. 32: 775 -781.
- Krauss, H.H., I. Robinson, W. Janzen and N. Cauthen (1972) "Predictions of Ethical Risk-Taking by Psychopathic and Non-Psychopathic Criminals" Psychological Reports. 30: 83-99.
- Krauss, H.H., I.E. Robinson and N.E. Cauthen (1972) "Variables Which Influence Ethical Risk-Taking Among Convicts". American Psychological Association: Proceedings of the Annual Convention. 7: 225-226.
- Kraut, R.E. (1976) "Deterrent and Definitional Influences on Shoplifting". Social Problems. 23: 358-368.
- Krohm, G. (1973) "Comment on Llad Phillips, 'The Case for Deterrence'" In Simon Rottenberg (ed.) The Economics of Crime and Punishment. American Enterprise Institute for Policy Research, Washington, D.C. 103-116.
- Krohm, G. (1973) "The Pecuniary Incentives of Property Crime" in S. Rottenberg (ed), The Economics of Crime and Punishment, American Enterprise Institute for Public Policy Research, Washington, D.C.
- Kuhlhorn, E. (1975) "General Deterrence and Rehabilitation Problems in The Swedish Non-Institutional Treatment Sector" in General Deterrence: A Conference on Current Research and Standpoints. The National Swedish Council for Crime Prevention, Sweden, Research and Development Division. 2: 105:136, (113-118 relevant)
- Kuhlhorn, E. (1975) "Non-Institutional Treatment : A Preliminary Evaluation of The Sundsvall Experiment" in National Swedish Council of Crime Prevention, Report No. 1.
- Kunkel, J.H. and M.A. Garrick (1969) "Models of Man in Sociological Analysis, Social Science Quarterly 50: 136-152

- Kuykendall, H.K. (1969) The Deterrent Efficacy of Punishment, M.A. Dissertation, The University of Texas at Austin.
- Ladd, J. (1957) The Structure of a Moral Code, Cambridge: Harvard University Press.
- Lana, R.E. (1969) Assumptions of Social Psychology, New York: Appleton-Century-Crofts.
- Land, K.C. (1969) "Principles of Path Analysis". in E.F. Borgatta (ed) Sociological Methodology. San Fransisco: Jossey-Bass Publishers. 3-38.
- Landau, B. (1975) "The Adolescent Female Offender : Our Dilemma". Canadian Journal of Criminology and Corrections. 17: 146-153.
- Lander, B. (1954) Towards An Understanding of Juvenile Delinquency, New York: Columbia University Press.
- Landes, W. (1971) "An Economic Analysis of the Courts". The Journal of Law and Economics. 14: 61-107.
- Landes, W.M. (1978) "An Economic Study of U.S. Aircraft Hijacking, 1961-1976". Journal of Law and Economics . 21: 1-31.
- Larson, R.C. (1972) Urban Police Patrol Analysis , Cambridge, Massachusetts:M.I.T. Press.
- Larson, R.C. (1975) "What Happened to Patrol Operations in Kansas City? : A Review of the Kansas City Preventive Patrol Experiment". Journal of Criminal Justice. 3: 267-297.
- Lateef, A.B. (1974) "Helicopter Patrol in Law Enforcement; An Evaluation". Journal of Police Science and Administration . 2: 62-65.
- LaVoie, J.C. (1974) "Type of Punishment as a Determinant of Resistance to Deviation". Developmental Psychology. 10: 181-189.
- Law Reform Commission of Canada (1974) Studies on Sentencing, Ottawa:Information Canada.
- Lazarsfeld, P.F. and H. Menzel (1961) "On the Relations Between Individual and Collective Properties" in A. Etzioni (ed.) Complex Organizations: A Sociological Reader, New York: Holt, Rinehart and Winston. 422-440.

- Lazarsfeld, P.F. and M. Rosenberg (eds.) (1955) The Language of Social Research, Glencoe: The Free Press.
- Lazarsfeld, P.L. (1968) "Evidence and Inference in Social Research" in May Brodbeck (ed.) Readings in the Philosophy of the Social Sciences, London: Collier-MacMillan.
- Legare, J. (1972) "Methods for Measuring School Performance through Cohort Analysis". Demography. 9: 617-624.
- Leifer, R. (1964) "The Psychiatrist and Tests of Criminal Responsibility". American Psychologist. 19: 830-835.
- Lejins, P.P. (1966) "Uniform Crime Reports". The Michigan Law Review. 64: 1011-1030.
- Lekman, E.W. (1971) "Social Indicators and Social Problems". in E.O. Smigel (ed.) Handbook on the Study of Social Problems, Chicago: Rand McNally and Company. 149-176.
- Lemert, E.M. (1951) Social Pathology, New York: McGraw-Hill.
- Lempert, R. (1966) "Strategies of Research Design in the Legal Impact Study". Law and Society Review. 1: 111-132.
- Lempert, R. (1981-82) "Organizing For Deterrence : Lessons From A Study Of Child Support". Law and Society Review. 16: .
- Lempert, R. (1983) "The Effect of Executions on Homicides : a New Look in an Old Light". Crime and Delinquency. 29: 88-115.
- Lenzen, V.F. (1953) Causality in Natural Science, Springfield: Thomas.
- Lerner, D. (ed.) (1965) Cause and Effect, New York: The Free Press.
- Lerner, D. and H.D. Lasswell (1951) The Policy Sciences, Stanford: Stanford University Press.
- Levine, J.P. (1975) "The Ineffectiveness of Adding Police to Prevent Crime". Public Policy. 23: 524-545.
- Levonian, D. (1968) "Interpretation of Published Results Relating Personality to Opinion Change". Psychological Bulletin. 79: 388-389.
- Lewis, C.S. (1962) "The Humanitarian Theory of Punishment". in R.C. Donnelly, J. Goldstein and R.O. Schwartz (Eds) Criminal Law, New York: The Free Press.

- Lewis, E.B. and T.T. Sullivan (1979) "Combating Crime and Citizen Attitudes: A Study of the Corresponding Reality". Journal of Criminal Justice. 7: 71-79.
- Lind, R.C. and J.P. Lipsky (1971) "The Measurement of Police Output: Conceptual Issues and Alternative Approaches". Law and Contemporary Problems. 36: 566-588.
- Linden, P. and S. Matti (1975) "General Deterrence and the General Sense of Justice". in General Deterrence: A Conference on Current Research and Standpoints, The National Swedish Council for Crime Prevention, Sweden, Research and Development Division. 2: 179-192.
- Linn, R.L. and C.E. Werts (1969) "Assumptions in Making Causal Inferences from part correlations, partial correlations, and partial regression coefficients". Psychological Bulletin. 72: 307-310.
- Lisner, R.L. (1975) Student Attitudes Towards Corporal Punishment, Ph.D. Dissertation, U.S. International University.
- Little, A.D. (1970) The State of the Art of Traffic Safety, New York: Praeger.
- Little, J.W. (1970) "A Theory and Empirical Study of What Deters Drinking Drivers, If, When and Why?". Administrative Law Review. 23: 23-57 and 23: 169-193.
- Littrell, W.B. (1979) Bureaucratic Justice : Police, Prosecutors and Plea Bargaining, Beverly Hills : Sage Publications.
- Lizotte, A.J. and D.J. Bordua (1980) "Firearms Ownership for Sport and Protection: Two Not So Divergent Models", American Sociological Review, 45: 229-244.
- Lizotte, A.J., D.J. Bordua and C.S. White (1981) "Firearms Ownership for Sport and Protection: Two Not So Divergent Models", American Sociological Review, 46: 499-503.
- Lizotte, A.J. and M.S. Zatz (Forthcoming) "The Use and Abuse of Sentence Enhancement for Firearms Offences in California". Law and Contemporary Problems.
- Locke, J. (1690) An Essay Concerning Human Understanding, Abridged and Edited by A.S. Pringle-Pattison. Oxford: Clarendon Press, 1924.

- Loftin, C., M. Heumann, and D. McDowall (1981) "Mandatory Sentencing and Firearms Violence: Evaluating an Alternative to Gun Control". Law and Society Review, 17: 287-318.
- Logan, C.H. (1974) "Arrest vs. Imprisonment: Possible Deterrent Effects". Unpublished Paper. Department of Sociology, The University of Connecticut.
- Logan, C.H. (1975) "Arrest Rates and Deterrence". Social Science Quarterly. 56: 376-389.
- Logan, C.H. (1972) "General Deterrent Effects of Imprisonment". Social Forces. 51: 64-73.
- Logan, C.H. (1971) "Legal Sanctions and Deterrence from Crime". Unpublished Ph.D. Thesis. Bloomington: Department of Sociology, Indiana University.
- Logan, C.H. (1971) "On Punishment and Crime (Chiricos and Waldo, 1970): Some Methodological Commentary". Social Problems. 19: 280-284.
- Logan, C.H. (1980) "Review of Blumstein et al (1978)". Contemporary Sociology. 9: 389-390.
- Long, T.A. (1973) "Capital Punishment -- 'Cruel and Unusual?'". Ethics. 83: 214-223.
- Lucas, W.C. (1973) Negative Stereotypes as a Deterrent to Marijuana Use, Ph.D. Dissertation, Utah State University.
- Lundberg, G.A. (1942) Social Research, New York: Longmans Publishing Company.
- Lunden, W.A. (1960) "The Death Penalty". Police. 4: 34-37.
- Lyall, K.C. (ed.) (1976) "Russell Sage Reports: Critiques and Commentaries on Evaluation Research Activities". Evaluation. 3: 115-138.
- Lyons, M. (1971) "Technique for using ordinal measures in regression and path analysis". in Herbert L. Costner (ed.) Sociological Methodology, San Francisco: Jossey-Bass Publishers.
- MacDonald, A.M. (ed.) (1966) Chambers Etymological English Dictionary, London: W & R. Chambers Limited.
- MacDonald, J.A. (1971) Rape: Offenders and Their Victims, Springfield: Charles C. Thomas.

- MacDonald, L. (1967) "Crime and Punishment in Canada: A Statistical Test of the Conventional Wisdom". Canadian Review of Social Anthropology. 6: 212-236.
- MacIver, R.M. (1942) Social Causation, New York: Harper and Row.
- MacNaughton-Smith, P. and M.Spencer (1970) "First Steps in an Empirical Study of the Nature of Real and Imaginary Crime". Paper presented to the Sixth International Congress on Criminology. Madrid, Spain.
- MacNeil, D.H. (1948) "The Vulnerability Index: An Account of Experimentation in the predicting a community's crime rate". Survey Midmonthly. 84: 3-6.
- McCafferty, J.A. (1954) "Capital Punishment". Unpublished Master's Thesis. Columbus: Ohio State University.
- McClintock, F.H. and N.H. Avison (1968) Crime in England and Wales, London: Heinemann.
- McCorkle, L.W. and R. Korn (1962) "Resocialization within walls" in N. Johnston, L. Savitz and M.E. Wolfgang (eds.) The Sociology of Punishment and Correction. New York: John Wiley and Sons, Inc.
- McCoy, C. (1984a) "Plea Bargaining and Proposition Politics: The Impact of California's 'Ban' on Plea Negotiations". Paper presented at the Annual Meeting of the American Society of Criminology, Cincinnati, Ohio.
- McCoy, C. (1984b) "Determinate Sentencing, Plea Bargaining Bans, and Hydraulic Discretion in California". Justice System Journal. 9:256-275.
- McGinnis, R. (1965) Mathematical Foundations for Social Analysis, Indianapolis: Bobbs-Merrill.
- McGrath, W.T. (ed.) (1965) Crime and Its Treatment in Canada, Toronto: The MacMillan Company.
- McKee, D.L. and M.L. Sesnowitz (1976) "Welfare Economic Aspects of Capital Punishment". American Journal of Economics and Sociology. 35: 41-47.
- McPheters, L.R. (1976) "Criminal Behavior and the Gains from Crime". Criminology. 14: 137-152.
- McPheters, L.R. (1978) "Econometric Analysis of Factors Influencing Crime on the Campus". Journal of Criminal Justice. 6: 47-52.

- McPheters, L.R. and W.B. Stronge (1974) "Law Enforcement Expenditures and Urban Crime". National Tax Journal. 27: 633-644.
- McPheters, L.R. and W.B. Stronge (1976) The Economics of Crime and Law Enforcement. Springfield, Illinois: Charles C. Thomas.
- Mabbott, L.O. (1971), "Punishment". in S.E. Grupp (Ed) Theories of Punishment. Bloomington: Indiana University Press.
- Mack, J.A. (1972) "The Able Criminal". British Journal of Criminology. 12: 44-54.
- Mackey, P. (1974) "The Inutility of Mandatory Capital Punishment". Boston University Law Review. 54: 32-35.
- Madden, E.H. (ed.) (1960) The Structure of Scientific Thought, Boston: Houghton Mifflin Company.
- Madeley, St.J. (1965) "Probation". in W.T. McGrath (Ed.) Crime and Its Treatment in Canada, Toronto: The MacMillan Company.
- Madge, J. (1965) The Tools of Social Science, New York: Doubleday.
- Mannkeim, K. (1952) "The Problem of Generation". in P. Kecskemeti (ed.) Essays on the Sociology of Knowledge, New York: Oxford University Press.
- Manski, C.F. (1978) "Prospects for Inference on Deterrence through Empirical Analysis of Individual Criminal Behavior". in Blumstein, Cohen and Nagin (eds) Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, Washington, D.C: National Academy of Sciences. 400-424.
- Manzoni, A. (1964) The Column of Infamy, . London: Oxford University Press.
- Markwood, J.M. (1975) Knowledge and Attitudes Regarding the Juvenile Justice System Among Delinquent and Non-Delinquent Youth. Ph.D. Dissertation, University of Virginia.
- Martin, J.D. and L.N. Gray (1971) "Measurement of Relative Variation: Sociological Examples". American Sociological Review. 36: 486-502.
- Martin, J.P. (1965) "The Cost of Crime: Some Research Problems". International Review of Criminology Policy. 23: 57-63.

- Martin, J.P. and J. Bradley (1964) "Design of a Study of the Cost of Crime". British Journal of Criminology. 4: 591-603.
- Martin, J.P. and G. Wilson (1967) "Problems in cost of Crime Analysis: Some aspects of Police expenditures in England and Wales". International Review of Criminology Policy. 25: 47-55.
- Martinson, R. (1975) "The Incapacitation-Deterrence Conundrum: Remarks on Some Recent Econometric Research", Unpublished paper.
- Martinson, R. (1975) "Restraint and Incapacitation: An Analytical Introduction" in Ernest Van Den Haag and R. Martinson (eds.) Crime Deterrence and Offender Career. City College of the City University of New York, New York. 173-250.
- Martinson, R. (1974) "What Works? - Questions and Answers about Prison Reform". The Public Interest. 35: 25-54.
- Marwell, G. and D.R. Schmitt (1967) "Compliance-Gaining Behavior: A Synthesis and Model". Sociological Quarterly. 8: 317-328.
- Mason, R. and L.D. Calvin (1978) "A Study of Admitted Income Tax Evasion". Law and Society Review. 13:73-89.
- Mathieson, D. and P. Passell (1976) "Homicide and Robbery in New York City: An Economic Model". The Journal of Legal Studies. 5:83-98.
- Mattick, H.W. (1966) The Unexplained Death: An Analysis of Capital Punishment, Second Edition. Chicago: John Howard Association.
- Matza, D. (1964) Delinquency and Drift, New York: John Wiley and Sons Inc.
- Maurer, A. (1974) "Corporal Punishment". American Psychologist. 29: 614-626.
- May, K. (1954) "Intransitivity, Utility and Aggregation of Preference Patterns". Econometrica. 22: 1-13.
- Mayhew, L.H. (1971) "Social Planning, Social Control, and the Law". in E.O. Smigel (ed) Handbook on the Study of Social Problems, Chicago: Rand McNally. 479-507.
- Mead, G.H. (1918) "The Psychology of Punitive Justice". American Journal of Sociology. 23: 577-602.

- Meehan, E.J. (1967) Contemporary Political Thought: A Critical Study, Homewood: The Dorsey Press.
- Meehl, P.E. (1971) "High School Yearbooks: A Reply to Schwartz". Journal of Abnormal Psychology. 77: 143-148.
- Meehl, P.E. (1971) "Law and the fireside inductions: some reflections of a Clinical Psychologist". Journal of Social Issues. 27: 65-100.
- Meehl, P.E. (1970) "Nuisance Variables and the Ex Post Facto Design". in Michael Radner and Stephen Winokur (eds.) Minnesota Studies in the Philosophy of Science. 4: Minneapolis: University of Minnesota Press.
- Mehay, S.L. and D.C. Shoup (1977) "Models of Police Services for Program Analysis". in Stuart S. Nagel (ed.) Modeling the Criminal Justice System. Beverly Hills: Sage Publications. 111-125.
- Mehay, S.L. (1973) Production Functions for Crime Deterrent Police Services. Ph.D. Dissertation, University of California, Los Angeles.
- Meier, R.F. (1979) "Correlates of Deterrence: Problems of Theory and Method". Journal of Criminal Justice. 7: 11-20.
- Meier, R.F. and W.T. Johnson (1977) "Deterrence as Social Control: The Legal and Extralegal Production of Conformity". American Sociological Review. 42: 292-304.
- Meier, R.F. (1974) Marijuana Use and Social Control: A Study of the Deterrent Effects of Legal Sanctions. Ph.D. Dissertation, University of Wisconsin.
- Meier, R.F. (1982) "Jurisdictional Differences in Deterring Marijuana Use". Journal of Drug Issues. 12: 61-71.
- Meier, R.F., S. Burkett and C. Hickman (1984) "Sanctions, Peers, and Deviance: Preliminary Models of a Social Control Process". The Sociological Quarterly. 25: 67-82. n
- Menninger, K. (1966) The Crime of Punishment, New York: The Viking Press.
- Merton, R.K. (1957) Social Theory and Social Structure, London: The Free Press.
- Merton, R.K. (1936) "The Unanticipated Consequences of Purposive Social Action". The American Sociological Review. 1:894-904.

- Messenger, S.L. and P.E. Johnson (1978) "California's Determinate Sentencing Statute: History and Issues". in Determinate Sentencing: Reform or Regression? Proceedings of the Special Conference on Determinate Sentencing, National Institute of Law Enforcement, Law Enforcement Assistance Administration, U.S. Department of Justice. 13-58.
- Messinger, S.L. and E. Bittner (eds.) (1979) Criminology Review Yearbook Volume One, Beverly Hills: Sage Publications.
- Meyer, J.C. (1972) "Change and the Obstacles to Change in Prison Management". Federal Probation. 37: 3-8.
- Michaels, R.M. (1960) "The Effects of Enforcement on Traffic Behavior". Public Roads. 31: 109-113.
- Michener, H.A. and E.C. Cohen (1973) "Effects of Punishment Magnitude in the Bilateral Threat Situation: Evidence for the Deterrence Hypothesis". Journal of Personality and Social Psychology. 26: 427-438.
- Michotte, A. (1963) The Perception of Causality, New York: Basic Books.
- Middendorf, W. (1968) The Effectiveness of Punishment; Especially in Relation to Traffic Offenses, South Hackensack: Fred B. Rothman and Company.
- Mill, J.S. (1856) A System of Logic, London: Parker, Son and Bowin.
- Mill, J.S. (1925) A System of Logic. Eighth Edition. Chicago: Longmans, Green and Company.
- Miller, D. A. Rosenthal, D. Miller and S. Ruzek (1968) "Public Knowledge of Criminal Penalties: A Research Report". Sacramento: California Assembly Committee on Criminal Procedure. 10-18.
- Miller, D. et al (1971) "Public Knowledge of Criminal Penalties: A Research Report". in S. Grupp (ed.) Theories of Punishment, Bloomington: Indiana University Press. 205-226.
- Miller, F.P. (1965) "Parole" in W.T. McGrath (ed.) Crime and Its Treatment in Canada, Toronto: The MacMillan Company.
- Miller, H.D. (1981) "Projecting the Impact of New Sentencing Laws on Prison Populations". Policing Science. 13: 51-73.

- Minnesota Law Review Editors (1971) "Constitutional Law: capital punishment for rape constitutes cruel and unusual punishment when no life is taken or endangered". Minnesota Law Review. 56: 95-110.
- Minor, W.W. (1975) Control Theory and Deterrence of Crime: A Theoretical and Empirical Investigation. Ph.D. Dissertation, Florida State University.
- Minor, W.W. (1975) "Skyjacking Crime Control Models". The Journal of Criminal Law and Criminology. 66: 94-105.
- Minor, W.W. and J. Harry (1982) "Deterrent and Experiential Effects in Perceptual Deterrence Research : A Replication and Extension". Journal of Research in Crime and Delinquency 190-203.
- Moberly, W.(Sir) (1968) The Ethics of Punishment , London: Farber and Farber.
- Monachesi, E. (1955) "Pioneers in Criminology: Cesare Becarria (1738 - 1793)". Journal of Criminal Law, Criminology and Police Science. 46: 439-449.
- Monahan, T.P. (1960) "On the Incidence of Delinquency". Social Forces. 39: 66-72.
- Monzingo, J.E. (1977) "Economic Analysis of the Criminal Justice System". Crime and Delinquency. 23: 260-271.
- Morgenbesser, S., P. Suppes and M. White (eds.) (1969) Philosophy, Science and Method, New York: St. Martin's Press.
- Morris, A. (1941) "Criminal Views on Crime Causation". The Annals of the American Academy of Political and Social Sciences. 217: 138-144.
- Morris, D. and L. Tweeten (1971) "The Cost of Controlling Crime: A Study in Economics of City Life". Annals of Regional Science. 33-49.
- Morris, N. (1966) "Impediments to Penal Reform". University of Chicago Law Review. 33: 627-656.
- Morris, N. and F. Zimring (1969) "Deterrence and Corrections". The Annals of the American Academy of Political and Social Sciences. 381: 137-146.
- Morris, T. (1958) The Criminal Area, London: Routledge and Kegan Paul.

- Moses, E.R. (1947) "Differentials in crime rates between negroes and whites, based on comparisons of four socio-economically equated areas". American Sociological Review. 12: 411-420.
- Mueller, J.H. and K.F. Schuessler (1961), Statistical Reasoning in Sociology. Boston: Houghton Mifflin Company.
- Munden, K. (1966) "An Experiment in Enforcing the 30 m.p.h. Speed Limit". Road Research Laboratory Report 24.
- Mundle, C.W.K. (1971) "Punishment and Dessert". in S.E. Grupp (ed.) Theories of Punishment Bloomington: Indiana University Press.
- Murdock, G.P. (1938) Our Primitive Contemporaries, New York: MacMillan and Company.
- Nagel, E. (1961) The Structure of Science, New York:Harcourt.
- Nagel, E. (1965) "Types of Causal Explanation in Science" in Daniel Lerner (ed.) Cause and Effect, New York:The Free Press. 11-32.
- Nagel, S.S. (1969) The Legal Process from a Behavioural Perspective, Homewood:The Dorsey Press.
- Nagin, D. (1978) "Crime Rates, Sanction Levels, and Constraints on Prison Population" Law and Society Review, 12:341-366.
- Nagin, D. (1978) "General Deterrence : A Review of the Empirical Evidence" in Blumstein, Cohen and Nagin (eds) Deterrence and Incapacitation : Estimating the Effects of Criminal Sanctions on Crime Rates, Washington D.C.:National Academy of Sciences. 95-139.
- Nettler, G. (1946) The Legal Process from a Behavioural Perspective, Homewood:The Dorsey Press.
- Nettler, G. (1950a) "Rapoport, A. Science and the goals of man." The Journal of General Psychology, 43:159-161.
- Nettler, G. (1950b) "A Note on the Notion of a 'Scientific Morality'" The Journal of Social Psychology, 32:115-118.
- Nettler, G. (1959) "Cruelty, Dignity, and Determinism" American Sociological Review, 24:375-384.
- Nettler, G. (1966) "Response to Crime", Edmonton:Department of Sociology, The Univerity of Alberta. mimeographed.

- Nettler, G. (1968) "Using our Heads" American Sociologist, 3:200-207.
- Nettler, G. (1970) Explanations, Toronto:McGraw-Hill Book Company.
- Nettler, G. (1971) "Knowing and Doing" Paper read at the Conference on Social Science Research and Social Policy, Edmonton:Human Research Council.
- Nettler, G. (1972a) "Shifting the Load" American Behavioral Scientist, 15:361-379.
- Nettler, G. (1972b) "Knowing and Doing" The American Sociologist, 7:3-7.
- Nettler, G. (1973) "Wanting and Knowing" American Behavioral Scientist, 17:5-25.
- Nettler, G. (1974a) Explaining Crime, Toronto:McGraw-Hill.
- Nettler, G. (1974b) Sociology, 532. Edmonton:Department of Sociology, University of Alberta. Unpublished Manuscript.
- Neu, A. (1974) "The Administration of Punishment from the Economic Point of View" Law and State, 9:117--.
- New York City Department, (1954) "Project 25", Unpublished Research Report.
- Newman, D.J. (1956) "Pleading Guilty for Considerations : A Study of Bargain Justice" Journal of Criminal Law, Criminology, and Police Science, 46:780-790.
- Newman, D.J. (1962) "The Effects of Accomodations in Justice Administration on Criminal Statistics" Sociology and Social Research, 46:144-155.
- Noam, E.M. (1977) "The Criminal Justice System : An Economic Model" in S.S. Nagel (ed.) Modeling the Criminal Justice System, Beverly Hills:Sage Publications. 41-46.
- Noam, E.M. (1976) The Criminal Justice System : An Economic Analysis of Benefits and Interrelations, Unpublished Ph.D. Dissertation, Harvard University.
- Normandeau, A. (1969) "Trends in Robbery as Reflected by Different Indexes" in T. Sellin and M.E. Wolfgang (eds) Delinquency : Selected Studies, New York:John Wiley and Sons, Inc.

- Normandeau, A. (1968) Trends and Patterns in Crimes of Robbery, Unpublished Ph.D. Dissertation. University of Pennsylvania, Philadelphia, Pennsylvania.
- Nozick, R. (1969) "Coercion" in S. Morgenbesser, P. Suppes, and M. White (eds) Philosophy, Science, and Method, New York:St. Martin's Press.
- Nygreen, C.T. (1971) "Interactive Path Analysis" The American Sociologist, 6:37-43.
- Ogren R.W. (1973) "The Ineffectiveness of the Criminal Sanction in Fraud and Corruption Cases : Losing the Battle Against White-Collar Crime" The American Criminal Law Review, II:959-988.
- Ogur, J.D. (1973) "An Economic Analysis of Murder Rates in U.S. Cities", Houston, Texas:Paper Presented to the Annual Meeting of the Southern Economic Association.
- Ohio Legislative Service Commission. (1961) Report.
- Orsagh, T. (1973) "Crime, Sanctions, and Scientific Explanation" Journal of Criminal Law, Criminology, and Police Science, 64:354-361.
- Orsagh, T.J. (1970) "The Determinants of Major Crime in California in 1960" Western Economic Journal, 8.
- Ortega, G.J. (1933) The Modern Theme, New York:W.W. Norton.
- Osborne, H.W. (1968) "On Crime, Punishment and Deterrence" Social Science Quarterly, 49:157-160.
- Ouimet, R. (1969) Report of the Canadian Committee on Corrections, Ottawa:Queen's Printer.
- Packer, H.L. (1968) "The Limits of the Criminal Sanction", Stanford:University Press.
- Palmer, J. (1977) "Economic Analyses of the Deterrent Effect of Punishment : A Review" Journal of Research in Crime and Delinquency, 14:4-21.
- Panawek, G. (1970) Relationship between Knowledge of Criminal Law and Attitudes and Deterrents, Ph.D. Dissertation, United States International University.
- Pap, A. (1958) "Determinism, Freedom, Moral Responsibility, and Causal Talk" in S. Hood (ed.) Determinism and Freedom, New York:Collier Books. 212-218.

- Pap, A. (1962) An Introduction to the Philosophy of Science, Glencoe:The Free Press.
- Parento, V. (1935) The Mind and Society, New York:Harcourt, Brace and World. 1.
- Parratt, S.D. (1939) "Criteria in Criminal Definitions--A Study in the Foundations of Law Enforcement" Journal of Criminal Law, Criminology, and Police Science, 30:332-352.
- Parsons, T. (1951) The Social System, Glencoe:The Free Press.
- Pashigian, B.P. (1975) "On the Control of Crime and Bribery" Journal of Legal Studies, 4:311-321.
- Passell, P. (1975) "The Deterrent Effect of the Death Penalty : A Statistical Test" Stanford Law Review, 28:61-80.
- Passell, P. and J.B. Taylor. (1976) "The Deterrence Controversy : A Reconsideration of the Time Series Evidence" in H.A. Bedau and C.M. Pierce (eds) Capital Punishment in the United States, New York:AMS Print Inc. 336-358.
- Passell, P. and J.B. Taylor. (1977) "The Deterrent Effect of Capital Punishment : Another View" American Economic Review, 67:445-451.
- Pate, T., G.L. Kelling and C. Brown. (1975) "A Response to 'What Happened to Patrol Operations in Kansas City?'" Journal of Criminal Justice, 3:299-320.
- Patrick, C.H. (1970) "Capital Punishment an Life Imprisonment in North Carolina, 1946-1968 : Implications for Abolition of the Death Penalty" Wake Forest Intramural Law Review, 6:417-429.
- Peck, D.G. (1976) Belief, Deterrence and Marijuana Use, Ph.D. Dissertation, Washington State University.
- Peck, J.K. (1975-76) "The Deterrent Effect of Capital Punishment : Ehrlich and his Critics" The Yale Law Journal, 85:368-369.
- Peck, R. (1967) "The Effectiveness of Warning Letters in Reducing Accidents and Citation Frequency" Traffic Safety Research Seminar Prodeedings:California Transportation Agency. 9-15.
- Pelz, D.C. and F.M. Andrews. (1964) "Detecting Causal Properties in Panel Study Data" American Sociological Review, 29:836-848.

- Perry, G.L. (1966) Unemployment, Money Wage Rates, and Inflation, Cambridge:The MIT Press.
- Petersilia, J. (1983) Radical Disparities in the Criminal Justice System. R2947NIC Rand: Santa Monica.
- Petrie, A. (1967) Individuality in Pain and Suffering, Chicago:The University of Chicago Press.
- Pettigrew, T. and R. Spier. (1962) "The Ecological Structure of Negro Homicide" The American Journal of Sociology, 11:621:629.
- Phillips, A.W. (1958) "The Relation Between Unemployment and the Rate of Change of Moneywage Rates in the United Kingdom, 1862-1957" Economics, 25:283:299.
- Phillips, D.L. (1971) Knowledge From What?, Chicago:Rand McNally.
- Phillips, L. (1973) "The Case for Deterrence" The Economics of Crime and Punishment, Washington D.C.:American Enterprise Institute and Policy Research. 65-84.
- Phillips, L. and H.L. Votey Jr. (1977) "An Economic Basis for the Definition and Control of Crime" in S.S. Nagel (ed.) Modeling the Criminal Justice System, Beverly Hills:Sage Publications. 89-109.
- Phillips, L. and H.L. Votey Jr. (1975) "Crime Control in California" TL. Votey Jr. and J. Howell. "A Simultaneous Equation
- Phillips, L. and H.L. Votey Jr. (1972) "An Economic Analysis of the Deterrent Effect of Law Enforcement on Criminal Activity" Journal of Criminal Law, Criminology and Police Science, 63:330-342.
- Phillips, L., H.L. Votey Jr. and J. Howell. "A Simultaneous Equation System to Evaluate the Impact of Law Enforcement on the Generation of Crime" Mimeographed.
- Phillips, L., H.L. Votey Jr. and J. Howell. (1971) "Apprehension, Deterrence, Guns and Violence" Vancouver:Address to the Western Economic Association.
- Phillips, L., H.L. Votey Jr. and J. Howell. (1976) "Handguns and Homicide : Minimizing Losses and the Costs of Control" Journal of Legal Studies, 5:463-478.

- Phillips, L., H.L. Votey Jr. and D. Maxwell. (1972) "Crime, Youth and the Labor Market : An Econometric Study" Journal of Political Economy, 80:491-504.
- Phillips, L., H.L. Votey Jr. and D. Maxwell. (1972) "Economics and Jobs, or Crime" in T. Palm and H.G. Vatter (eds) The Economics of Black America, New York:Harcourt Brace Jovanovich.
- Phillips, L., H.L. Votey Jr., D. Maxwell. (1969) "Labor Market Conditions and Economic Crimes" Annual Meeting of the Western Economic Association:Unpublished.
- Piaget, J. (1930) The Child's Conception of Causality, London:Kegan Paul.
- Piaget, J. (1932) The Moral Judgement of the Child, New York:Harcourt and Brace.
- Piliavin, I.M., J.A. Hardyck and A.C. Vadum. (1968) "Constraining Effects of Personal Costs on the Transgressions of Juveniles" Journal of Personality and Social Psychology, 10:227-231.
- Piliavin, I.M., A.C. Vadum and J.A. Hardyck. (1969) "Delinquency, Personal Costs and Parental Treatment : A Test of A Rewarding Cost Model of Juvenile Criminality" The Journal of Criminal Law, Criminology and Police Science, 60:165-172.
- Pincoffs, E.L. (1966) The Rationale of Legal Punishment, New York:Humanities Press.
- Pogue, T.F. (1975) "Effect of Police Expenditures on Crime Rates : Some Evidence" Public Finance Quarterly, 3:14-44.
- Pogue, T.F. (1973) "Intercity-Difference in Crime Rates : The Roles of Law Enforcement Activities and Economic Conditions" New Orleans:The Annual Meeting of the Southern Regional Science Association.
- Police Chief, (1975) 20-45.
- Police Foundation, (1975) The Kansas City Preventive Patrol Experiment : A Technical Report, Washington D.C.:Police Foundation, 960pp.
- Polk, K. (1962) "A Note on Asymmetrical Causal Models" American Sociological Review, 27:539-548.
- Pontell, H.N. (1978) "Deterrence : Theory versus Practice" Criminology, 16:3-22.

- Popper, K.R. (1950) The Open Society and Its Enemies, Princeton:Princeton University Press.
- Popper, K.R. (1959) The Logic of Scientific Discovery, New York:Science Editions.
- Popper, K.R. (1961) The Logic of Scientific Discovery, New York:Basic Books.
- Popper, K.R. (1972) Objective Knowledge, Oxford:The Clarendon Press.
- Porterfield, A.L. (1949) "Indicies of Suicide and Homicide by States and Cities: Some Southern-non-Southern Contrasts with Implications for Research" American Sociological Review, 14:481-490.
- Porterfield, A.L. (1952) "Suicide and Crime in Fold and in Secular Society" American Journal of Sociology, 57:331-338.
- Pound, R. (1942) Social Control Through Law, New Haven:Yale University Press.
- Pound, R. (1945) "Sociology of Law" in G.Gurvitch and W.E. Moore (eds) Twentieth Century Sociology, New York:The Philosophical Library.
- President's Commission on Law Enforcement and the Administration of Justice. (1967a) Task Force Report:The Police, Washington, D.C.:U.S. Government Printing Office.
- President's Commission on Law Enforcement and the Administration of Justice. (1967b) Task Force Report:The Courts, Washington, D.C.:U.S. Government Printing Office.
- President's Commission on Law Enforcement and the Administration of Justice. (1967c) Task Force Report:Corrections, Washington, D.C.:U.S. Government Printing Office.
- President's Commission on Law Enforcement and the Administration of Justice. (1967d) Task Force Report:Science and Technology, Washington, D.C.:U.S. Government Printing Office.
- President's Commission on Law Enforcement and the Administration of Justice. (1967e) Task Force Report:Crime and Its Impact--An Assessment, Washington, D.C.:U.S. Government Printing Office.

- President's Commission on Law Enforcement and the Administration of Justice. (1967f) Task Force Report: The Challenge of Crime in a Free Society, Washington, D.C.: U.S. Government Printing Office.
- Press, S.J. (1971) Some Effects of an Increase in Police Manpower in the 20th Precinct of New York City, New York: New York City Rand Institute.
- Pressman, I. and A. Carol. (1971) "Crime as a Diseconomy of Scale" Review of Social Economy, 29:227-236.
- Price, J.E. (1966) "Testing the Accuracy of Crime Statistics" Social Problems, 14:214-221.
- Przeworski, A. and H. Teune. (1970) Logic of Comparative Social Inquiry, New York: Wiley-Interscience.
- Qualben, P.L. (1965) A Parametric Study of Dread : Preference for Immediate Punishment over Threat of Delayed Punishment as a Function of Length of Delay and Percent Punishment Schedule, Ph.D. Dissertation, Wayne State University.
- Quinney, R. (1970) The Social Reality of Crime, Boston: Little, Brown, and Company.
- Quinney, R. (1971) "Crime: Phenomenon, Problem, and Subject of Study" in E.O. Smigel (ed.) Handbook on the Study of Social Problems, Chicago: Rand McNally.
- Radner, M. and S. Winokur (eds.). (1970) Minnesota Studies in the Philosophy of Science, Minneapolis: University of Minnesota Press. IV.
- Radzinowicz, L. (1966) Ideology and Crime, New York: Columbia University Press.
- Rawson, H.E. (1961) The Relationship of Moral Value Dimensions and Unethical Behavior Under Varying Conditions of Risk, Ph.D. Dissertation, Ohio State University.
- Reckless, W.C. (1926) "The Distribution of Commercialized Vice in the City: A Sociological Analysis" Publication of the American Sociological Society, 20:164-176.
- Reckless, W.C. (1961) The Crime Problem, Second Edition, New York: Appleton-Century-Crofts.
- Reckless, W.C. (1969) "The Use of the Death Penalty : 'A Factual Statement'" Crime and Delinquency, 15:43-56.

- Reckless, W.C. (1971) The Crime Problem, Fifth Edition, New York:Appleton-Century-Crofts.
- Regan, D.H. (1972) "The Problem of Social Cost Revisited" The Journal of Law and Economics, 15:427-438.
- Reiss, A.J. and D.J. Bordua. (1967) "Environment and Organization:A Perspective on the Police" in D.J. Bordua (ed.) The Police, New York:John Wiley and Sons, Inc., 25-55.
- Reiss, A.J. Jr. (ed.) (1967) Studies in Crime and Law Enforcement in Major Metropolitan Areas, U.S. President's Commission on Law Enforcement and Administration of Justice Field Study III, Washington, D.C.:U.S. Government Printing Office.
- Reppetto, T.A. (1974) A Residential Crime, Cambridge, Massachusetts:Ballinger Publisher Co.
- Rettig, S. (1964) "Ethical Risk Sensitivity in Male Prisoners" The British Journal of Criminology, 4:582-590.
- Rettig, S. (1969) "Locus of Control in Predictive Judgements of Unethical Behavior" Proceedings of the 77th Annual Convention of the American Psychological Association, 427-428.
- Rettig, S. and B. Pasamanick. (1964) "Differential Judgement of Ethical Risk by Cheaters and Non-Cheaters" Journal of Abnormal and Social Psychology, 69:109-113.
- Rettig, S. and H.E. Rawson. (1963) "The Risk Hypothesis in Predictive Judgements of Unethical Behaviour" Journal of Abnormal and Social Psychology, 66:243-248.
- Rettig, S. And P.N. Singh. (1963) "The Risk Hypothesis in Judgements of Unethical Behaviour : A Cross-Cultural Replication" The Israel Annals of Psychiatry and Related Disciplines, 1:225-234.
- Rettig, S. and J.B.P. Sinha. (1966) "Bad Faith and Ethical Risk Sensitivity" Journal of Personality, 34:275-286.
- Reynolds, M.O. (1971) Crimes for Profit : Economics of Theft, Ph.D. Dissertation. The University of Wisconsin.
- Rhees, R. (1947) "Social Engineering" Mind, 56:317-331.
- Riccio, L.J. "Direct Deterrence - An Analysis of the Effectiveness of Police Patrol and Other Crime Prevention Technologies" Journal of Criminal Justice, 2:207-217.

- Riedel, M. (1972) "The Perception of Crime : A Study of the Sellin-Wolfgang Seriousness Index" Paper Presented at the Annual Meetings of the Inter-American Association of Criminology an the American Society of Criminology, Carcus:Venezuela.
- Riley, M.W. (1973) "Aging and Cohort Succession : Interpretations and Misinterpretations" Public Opinion Quarterly, 37:35-49.
- Robbins, L. and A. Strasser. (1974) "An Economic Analysis of Crime with Application to Capital Punishment" Unpublished, C.H. Dickerman Prize Senior Essay:Yale University.
- Robertson, L.S. (1976) "An Instance of Effective Legal Regulation : Motorcyclist Helmet and Daytime Headlight Laws" Law and Society Review, 11:467-477.
- Robertson, L.S., R.F. Rich and H.L. Ross. (1973) "Jail Sentences for Driving While Intoxicated in Chicago : A Judicial Policy that Failed" Law and Society Review, 8:55-67.
- Robinson, C.D. (1975) "Social Implications of Driver Disqualification : Reality and Road Traffic Laws" Australian and New Zealand Journal of Criminology, 8:169-175.
- Robinson, W.S. (1950) "Ecological Correlations and the Behavior of Individuals" American Sociological Review, 15:351-357.
- Roche, P.H.O. (1958) "A Psychiatrist Looks at the Death Penalty" The Prison Journal, 38:46-49.
- Rock, J.M. and S.E. Reynolds. (1975) "The Economics of Punishing Convicted Misdemeanants" Intellect, 103:391--.
- Rocke, P.Q. (1962) "The Criminal Mind" in Richard C. Donnelly (ed.) Criminal Law, New York:Collier-Macmillan.
- Roesch, S.H. (1976) Deterrents to Delinquency as Perceived by Delinquents and Non-Delinquents, Ph.D. Dissertation, Florida Atlantic University.
- Rogers, A.J. (1973) The Economics of Crime, Hinsdale:The Dryden Press.
- Roget, P.M. (1962) Roget's International Thesaurus, Third Edition, New York:Thomas Y. Crowell.
- Rojek, D.G. and M.L. Erickson (1982) "Delinquent Careers: A Test of the Career Escalation Model", Criminology, 20: 5-28.

- Rose, A. (1964) "Conditions for Irrational Choices" Social Research, 30:143-156.
- Rose, A.M. and A.E. Prell. (1955) "Does the Punishment fit the Crime? A Study in Social Valuation" American Journal of Sociology, 61:247-259.
- Rosenburg, M. (1968) Logic of Survey Analysis, New York:Basic Books.
- Rosenburg, M. (1973) "The Logical Status of Suppressor Variable" Public Opinion Quarterly, 38:359-372.
- Ross, E.A. (1917) Foundations of Sociology, London:The Macmillan Company.
- Ross, E.A. (1922) Social Control, New York:The Macmillan Company.
- Ross, H.L. and D.T. Campbell. (1968) "The Connecticut Speed Crackdown: A Study of the Effects of Legal Change" in H.L. Ross (ed.) Perspectives on the Social Order:Readings in Sociology. 30-55.
- Ross, H.L. (1977) "Deterrence Regained : The Cheshire Constabulary's 'Breathalyser Blitz'" Journal of Legal Studies, 6:241-249.
- Ross, H.L. (1973) "Law, Science and Accidents : The British Road Safety Act of 1967" Journal of Legal Studies, 2:1-78.
- Ross, H.L. (1975) "The Effectiveness of Drinking-and-Driving Laws in Sweden and Great Britain" in S. Israelstam and S. Lambert (eds.) Alcohol, Drugs and Traffic Safety, Toronto:Addiciton Research Foundation of Ontario. 663-678.
- Ross, H.L. (1976) "The Neutralization of Severe Penalties : Some Traffic Law Studies" Law and Society Review, 11:403-413.
- Ross, H.L. (1975) "The Scandanavian Myth : The Effectivness of Drinking-and-Driving Legislation in Sweden and Norway" The Journal of Legal Studies, 4:285-309.
- Ross, H.L. (1974) "The Scandanavian Myth : The Effectivness of Drinking-and-Driving Legislation in Sweden and Norway" Toronto:Paper to 6th International Conference on Alcohol, Drugs and Traffic Safety.
- Ross, H.L., D.T. Campbell and G.V. Glass. (1970) "Determining the Social Effects of a Legal Reform : The British 'Breathalyser' Crackdown of 1967" American Behavioral Scientist, 13:493-509.

- Rothman, D.J. (1971) The Discovery of the Asylum, Boston:Little, Brown, and Company.
- Rottenberg, S. (ed.) (1973) The Economics of Crime and Punishment, Washington:The American Enterprise Institute for Public Policy.
- Rowe, A.R. and C.R. Tittle. (1974) "Arrest and Crime: More on the Deterrence Problem" Unpublished. Department of Sociology. Boca Raton:Florida Atlantic University.
- Royal Commission on Capital Punishment 1949-1953(Great Britain). Report, "The Deterrent Value of Capital Punishment" 328-380.
- Rozelle, R.M. and D.T. Campbell. (1969) "More Plausible Rival Hypothesis in the Cross-Lagged Panel Correlation Technique" Psychology Bulletin, 71:74-80.
- Rubin, T.S. (1971) Law as an Agent of Delinquency Prevention, Washington D.C.:U.S. Government Printing Office.
- Runciman, W.G. (1970) Sociology in Its Place, Cambridge, England:University Press.
- Rusche, G. and O. Kirchheimer. (1939) Punishment and Social Structure, New York:Columbia University Press.
- Rusche, G. and O. Kirchheimer. (1968) Punishment and Social Structure, New York:Russell & Russell. 193-205.
- Russell, B. (1912) Mysticism and Logic, London:Penguin Books.
- Russell, B. (1914) Our Knowledge of the External World, London:Allen and Unwin.
- Ryan, A. (1970) The Philosophy of the Social Sciences, New York:Pantheon Books.
- Ryder, N.B. (1965) "The Cohort as a Concept in the Study of Social Change" American Sociological Review, 30:843-861.
- Salem, R.G. and W.J. Bowers. (1969) "Deterrent Effects of Formal Sanctions" The Annual Meeting of the American Sociological Association.
- Salem, R.G. and W.J. Bowers. (1970) "Severity of Formal Sanctions as a Deterrent to Deviant Behaviour" Law and Society Review, 5:21-40.
- Salmon, W.C. (1973) "Confirmation" Scientific American, 228:75-83.

- Salmond, J. (1937) Jurisprudence, London: Sweet and Mawell.
- Samuelson, P.A. (1965) "Some Notes on Causality and Teleology in in economics" in Daniel Lerner (ed.) Cause and Effect, New York: The Free Press. 99-143.
- Savitz, L. (1958) "A Study in Capital Punishment" Journal of Criminal Law, Criminology, and Police Science, 49:338-431.
- Savitz, L. (1967) Dilemmas in Criminology. New York: McGraw-Hill.
- Savitz, L. (1964) "The Deterrent Effect of Capital Punishment in Philadelphia" in H.A. Bedau (ed.) The Death Penalty in America, New York: Anchor Books. 315-322.
- Schaps, E. and C.L. Sanders. (1970) "Purposes, Patterns and Protection in a Campus Drug-Using Community" Journal of Health and Social Behaviour, 11:135-145.
- Schelder, G. (1976) "Capital Punishment and Its Deterrent Effect" Social Theory and Practice, 4:47-56.
- Schiff, A.F. (1969) "Statistical Features of Rape" Journal of Forensic Sciences, 14:102-110.
- Schiffman, H. and R. Wynne. (1963) Cause and Effect, Princeton: Educational Testing Service.
- Schmid, C. (1960a) "Urban Crime Area: Part I" American Sociological Review, 25:527-549.
- Schmid, C. (1960b) "Urban Crime Areas: Part II" American Sociological Review, 25:655-678.
- Schmid, C.F. and E.H. MacCannell. (1955) "Basic Problems, Techniques, and Theory of Isoplethic Mapping" American Statistical Association, 50:220-239.
- Schmideberg, M. (1960) "The Offender Attitude Towards Punishment" Journal of Criminal Law, Criminology, and Police Science, 51:327-334.
- Schnelle, J.F. et al. (1977) "Patrol Evaluation Research : A Multiple Baseline Analysis of Saturation Police Patrolling During Day and Night Hours" Journal of Applied Behaviour Analysis, 10:33-40.
- Schnore, L.F. (1961) "The Statistical Measurement of Urbanization and Economic Development" Land Economics, 27:229-245.

- Schuessler, K.F. (1952) "The Deterrent Influence of the Death Penalty" The Annals of the American Academy of Political and Social Science, 284:54-62.
- Schuessler, K.F. (1962) "Components of Variation in City Crime Rates" Social Problems, 9:314-322.
- Schuessler, K.F. (1971) "The Deterrent Influence of the Death Penalty" in S.E. Grupp (ed.) Theories of Punishment, Indiana:Bloomington.
- Schur, E.M. (1965) Crimes Without Victims, Englewood Cliffs:Prentice-Hall.
- Schur, E.M. (1968) Law and Society : A Sociological View, New York:Random House.
- Schwartz, B. (1968) "The Effect in Philadelphia of Pennsylvania's Increased Penalties for Rape and Attempted Rape" Journal of Criminal Law, 59:509-515.
- Schwartz, R. D. (1969) "Sanctions and Compliance" San Francisco:Read at the American Sociological Association.
- Schwartz, J.C. (1970) "Comment on 'High School Yearbook : A Nonreactive Measure of Social Isolation in Graduates who later Became Schizophrenic'." Journal of Abnormal Psychology, 75:317-318.
- Schwartz, R.D. and S. Orleans. (1967) "On Legal Sanctions" The University of Chicago Law Review, 34:274-300.
- Schwartz, R.D. and J.H. Skolnick. (1964) "Two Studies of Legal Stigma" in H. Becker. The Other Side, New York:The Free Press. 103-117.
- Schwartz, R.D. and J.H. Skolnich. (1970) Society and the Legal Order, New York:Basic Books.
- Scriven, M. (1964) "Critical Study: The Structure of Science" Review of Metaphysics, 17:403-424.
- Scriven, M. (1966) "Causes, Connections, and Conditions in History" in W. Dray (ed.) Philosophical Analysis and History, New York:Harper and Row.
- Scriven, M. (1968) "Notes on the Logic of Cause" Berkley:University of California, Department of Sociology mimeograph.

- Sellin, T. (1926) "Is Murder Increasing in Europe?" Annals of the American Academy of Political and Social Science, 214:29-34.
- Sellin, T. (1931) "The Basis of a Crime Index" Journal of Criminal Law and Criminology, 22:335-356.
- Sellin, T. (1932) "Common Sense and the Death Penalty" Prison Journal, 12:12-18.
- Sellin, T. (1950) Memorandum on Capital Punishment, Submitted to the British Royal Commission on Capital Punishment.
- Sellin, T. (1951) "The Significance of Records of Crime" The Law Quarterly Review, 67:489-504.
- Sellin, T. (1955) "The Death Penalty and Police Safety" Ottawa:Queen's Printer.
- Sellin, T. (1959) The Death Penalty, The American Law Institute.
- Sellin, T. (1965) "Capital Punishment: An Address Delivered as a Rally Sponsered by the Canadian Society for the Abolition of the Death Penalty" Criminal Law Quarterly, 8:36-51.
- Sellin, T. (1965) "Homocies and Assaults in American Prisons, 1964" Acta Criminologica et Medicinae Legalis Japonica.
- Sellin, T. (1966) "Effects of Repeal and Reintroduction of the Death Penalty of Homicide Rates" in H.A. Bedau (ed.) The Death Penalty In America, Chicago:Aldine.
- Sellin, T. (1967a) Capital Punishment, New York:Harper and Row.
- Sellin, T. (1967b) "Death and Imprisonment as Deterrents to Murder" in H. Bedau (ed.) The Death Penalty in America, New York:Anchor Books.
- Sellin, T. and M.E. Wolfgang. (1964) The Measurement of Delinquency, New York:John iley and Sons, Inc.
- Sellin, T. and M.E. Wolfgang. (1969) Delinquency Selected Studies, New York:John Wiley and Sons, Inc.
- Selltiz, C., M. Jahoda, M. Deutsch, and S.W. Cook. (1959) Research Methods in Social Relations, New York:Henry Halt and Company.
- Senders, V.L. (1958) Measurement and Statistics, New York:Oxford University Press.

- Shannon, L. (1954) "The Spacial Distribution of Criminal Offenses by States" Journal of Criminal Law and Criminology, 45:264-273.
- Sharkansky, I. (1967) "Government Expenditures and Public Services in the American States" American Political Science Review, 1066-1077.
- Sheppard, D. (1968) The 1967 Drink and Driving Campaign : A Survey Among Drivers, Berkshire: Crowthorne.
- Shevsky, E. and W. Bell (1955) Social Area Analysis: Theory, Illustrative Application, and Conceptual Procedures. Stanford: Stanford University Press.
- Shevsky, E. and M. Williams (1949) The Social Areas of Los Angeles: Analysis and Typology. Berkeley: University of California Press.
- Shevsky, E. and M. Williams (1959) The Death Penalty. Philadelphia: American Law Institute.
- Shevsky, E. and M. Williams (1961) "Capital Punishment" Federal Probation, 15: 28-35.
- Shlomo, S. (1964) "Two Sides of the Barricade" Police (November/December) 28-35.
- Shoup, D.C. and S.L. Mehay (undated) Program Bugeting for Urban Police Services, MR-154, Los Angeles: University of California, Insititute of Government and Public Affairs.
- Shover, Neal and William B. Bankston (1973) "Some Behavioral Effects of New Legislation" Paper presented at Annual Meeting of the Midwest Sociological Society, Milwaukee.
- Shover, Neal, William B. Bankston and J.W. Gurley (1973) "Increasing Sanctions, Citizen Awareness and Traffic Deaths: The Experience in One Jurisdiction" Mimeo, University of Tennessee.
- Shover, Neal, William B. Bankston and J.W. Gurley (1977) "Responses of the Criminal Justice System to Legislation Providing More Severe Threatened Sanctions" Criminology, 14: 483-500.
- Shuman E.M. (1963) Legal Positivism, Detroit: Wayne State University Press.
- Shumate, Robert P. (1958) Effect of Increased Partrol on Accidents, Diversion and Speed, The Traffic Institute. Evanston: North Western University.

- Siegal, J.S. (1968) "Completeness of coverage of the nonwhite population in the 1960 census and current estimates and some implications" In D.M. Heer (ed.) Social Statistics in the City. Cambridge: Joint Centre for Urban Studies of MIT and Harvard University.
- Siegal, S. (1956) Nonparametric Statistics. New York: McGraw-Hill.
- Silberman, Matthew (1976) "Toward a Theory of Criminal Deterrence" American Sociological Review 41: 442-461.
- Silver, Morris (1975) "A Critical Survey of the Recent Econometric Literature on Deterrence" In Ernest van den Haag and Robert Martinson (eds.) Crime Deterrence and Offender Career. New York: City College of the City University of New York. Pp. 136-172.
- Silver, Morris (1974) Punishment, Deterrence and Police Effectiveness: A Survey and Critical Interpretation of the Present Econometric Literature. New York: Unpublished Report for Crime Deterrence and Offender Career Project.
- Simon, Herbert A. (1954) "Spurious Correlation: A Causal Interpretation" Journal of American Statistical Association 49: 467-479.
- Simon, Herbert A. (1957) Models of Man New York: John Wiley and Sons.
- Simon, Herbert A. (1965) "Causal Ordering and Identifiability" In Daniel Lerner (ed.) Cause and Effect. New York: The Free Press.
- Simon, Herbert A. (1968) "Causation" In D.L. Sills (ed.) International Encyclopedia of the Social Sciences. New York: The Macmillan Company.
- Simon, Herbert A. and Nicholson Rescher (1966) "Cause and Counterfactual" Philosophy of Science, 33: 323-340.
- Singer, Barry F. (1975) "Psychological Experiments Relevant to Deterrence" In Ernest van den Haag and Robert Martinson (eds.) Crime Deterrence and Offender Career. New York: City College of the City University of New York. Pp. 100-135.
- Singh, Balbir (1973) "Making Honesty the Best Policy" Journal of Public Economics, 2: 257-263.
- Sinha, Jai B.P. (1967) "A Note on Ethical Risk Hypothesis" Journal of Social Psychology, 71: 117-122.

- Sinha, Jai B.P. (1967) "Ethical Risk and Censure-Avoiding Behavior" The Journal of Social Psychology, 71: 276-275.
- Sinha, Jai B.P. and R.J. Wherry Sr. (1965) "Determinants of Norm Violating Behavior in a Simulated Industrial Setting" Personnel Psychology, 18: 403-412.
- Sjoberg, G. and R. Nett (1968) A Method of Social Research. New York: Harper Row.
- Sjoquist, David L. (1970) "Property Crime as an Economic Phenomenon" A Research Report Submitted to the National Institute of Law Enforcement and Criminal Justice.
- Sjoquist, David L. (1973) "Property Crime and Economic Behavior: Some Empirical Results" The American Economic Review, 63: 439-446.
- Skogh, Goran (1973) "A Note on Gary Becker's 'Crime and Punishment: An Economic Approach'" Swedish Journal of Economics, Pp.305-311.
- Skolnick, Jerome H. (1966) Justice Without Trial. New York: John Wiley and Sons.
- Smigel, Erwin O. (ed.) (1971) Handbook on the Study of Social Problems. Chicago: Rand McNally.
- Smigel-Leibowitz, Arleen (1965) Crime and Punishment: An Economic Analysis, M.A. Thesis. New York: Columbia University.
- Smith, R. Dean (1962) "The Effect of Enforcement on Driving Behavior" International Association of Chiefs of Police.
- Solomon, M.D. and F. George (1975) "Capital Punishment as Suicide and as Murder" American Journal of Orthopsychiatry, 45: 701-711.
- Spiegel, Murray R. (1961) Theory and Problems of Statistics. New York: Schaum.
- State of Pennsylvania (1966) Purdon's Pennsylvania Legislative Service, 1966 Regular and Special Sessions, Philadelphia: Bisel.
- Stefanovicz, John P. and Thomas E. Hannum (1971) "Ethical Risk-Taking and Sociopathy in Incarcerated Females" Correctional Psychologist, 4: 138-152.
- Stephen, Sir J.F. (1883) A History of the Criminal Law in England. London: Macmillan.

- Stevens, S.S. (1968) "Ratio Scales of Opinion" In D.K. Whitla (ed.) Handbook of Measurement and Assessment in Behavioral Sciences. Reading: Addison-Wesley. Pp. 171-199.
- Stewart, C.H.M. (undated) An Investigation into the Risk-Taking and the Perception of Risk in Criminal Offenders. M.Phil Dissertation. University of London.
- Stewart, C.H.M. and D.R. Hemsley (1979) Risk Perception and Likelihood of Action in Criminal Offenders" British Journal of Criminology, 19: 105-119.
- Stigler, George J. (1970) "The Optimum Enforcement of Laws" Journal of Political Economy, 78: 526-536.
- Stinchcombe, Arthur L. (1968) Social Theories. New York: Harcourt.
- Stoll, Clarice S. (1968) "Images of Man and Social Control" Social Forces, 47: 119-127.
- Stover, Robert V. and Don W. Brown (1975) "Understanding Compliance and Non-Compliance with Law: The Contributions of Utility Theory" Social Science Quarterly, 56: 363-375.
- Strahan, R.F. (1971) "A Coefficient of Directional Correlation for Time-Series Analysis" Psychological Bulletin, 76: 211-214.
- Suchman, E.A. (1967) Evaluation Research: Principles and Practice in Public Service and Social Action Programs. New York: Russell Sage Foundation.
- Sudnow, D. (1965) "Normal Crimes: Sociological Features of the Penal Code in A Public Defender Office" Social Problems, 12: 255-276.
- Sullivan, Richard F. "The Economics of Crime: An Introduction to the Literature" Crime and Delinquency, 19: 138-149.
- Susser, Mervyn (1973) Causal Thinking in the Health Sciences. New York: Oxford University Press.
- Sutherland, E. (1934) Principles of Criminology. Chicago: J.B. Lippincott.
- Sutherland, E. "Murder and the Death Penalty" The Journal of Criminal Law, Criminology and Police Science, 15: 522-529.
- Sutherland, E. and D. Cressey (1966) Principles of Criminology. New York: Lippincott.

- Sutherland, E. and D. Cressey (1970) principles of Criminology Eighth Edition. Philadelphia: Lippincott.
- Swets, John A. (1973) "The Relative Operating Characteristic in Psychology" Science, 7: 990-1000.
- Swimmer, Eugene (1974) "Measurement of the Effectiveness of Urban Law Enforcement - A Simultaneous Equations Approach" Southern Economic Journal, 40: 618-629.
- Swimmer, Eugene (1972) Measurement of the Effectiveness of Urban Law Enforcement - A Simultaneous Equations Approach Ph.D Dissertation, Cornell University.
- Swimmer, Eugene (1974) "The Relationship of the Police and Crime: Some Methodological and Empirical Results" Criminology, 12: 293-314.
- Sykes, G.M. (1967) Crime and Society. Second Edition. New York: Random House.
- Taft, D.R. (1950) Criminology. New York: The Macmillan Company.
- Taft, D.R. and R.W. England (1968), Criminology, Fourth Edition. New York: The Macmillan Company.
- Tappan, P.W., (1951) Contemporary Corrections. New York: McGraw-Hill.
- Tappan, P.W., (1960), Crime, Justice, and Corrections. New York: McGraw-Hill.
- Teeters, N.K. (1952), "A limited survey of some prison practices and policies". Prison World, 29: 5-8.
- Teevan, Jr., J.J. (1977) "Deterrent Effects of Punishment for Breaking and Entering and Theft" Canadian Journal of Criminology and Corrections 8 , 19:123-149.
- Teevan, Jr., J.J. (1976) "Deterrent Effects of Punishment: Subjective Measures Continued" Canadian Journal of Criminology and Corrections, 18:152-160.
- Teevan, Jr., J.J. (1972) "Deterrent Effects of Punishment: The Canadian Case" Canadian Journal of Criminology and Corrections, 14:68-82. Also in C.L. Boydell, C.F. Grindstaff and P.C. Whitehead (eds), (1972) Deviant Behaviour and Societal Reaction in Canada, Toronto: Holt, Rinehart and Winston.

- Teevan, Jr., J.J. (1975) "Perceptions of Punishment: Current Research" in Richard L Henshel and Robert A. Silverman (eds), Perception in Criminology, New York: Columbia University Press.
- Teevan, Jr., J.J. (1976) "Subjective Perception of Deterrence (Continued)" Journal of Research in Crime and Delinquency, 13:155-164.
- Teevan, Jr., J.J. (1971) "Deterrent Effects of Punishment: Toward Subjective Measures," unpublished mimeo. (Paper presented at the Eastern Sociological Meetings, Boston, 1972).
- Tennant, P.A. (1973), "Advocates versus 'Treaters': The Corrections Confrontation". Judicature, 56:419-421.
- Terry, R.M. (1967), "The Screening of Juvenile Offenders". Journal of Criminal Law, Criminology, and Police Sciences. 58: 173-181.
- Thaler, R. (1977) "An Economic Analysis of Property Crime: Interaction between Police and Criminals" Journal of Public Economics, 8:37-51.
- Theil, H. (1965), Linear Aggregation of Economic Relations. Amsterdam: Nort-Holland Publishing Company.
- Theordorson, G.A. (1967), "The Uses of Causation in Sociology" in L. Gross (ed) Sociological Theory: Inquiries and Paradigms. New York: Harper and Row.
- Theordorson, G.A. and A.G. Theordorson (1969), A Modern Dictionary of Sociology. New York: Thomas Y. Crowell Company.
- Thomas, C., R. Cage and S. Foster, (1974) "Public Opinion on Criminal Law and Legal Sanctions: An Examination of Two Conceptual Models". Paper presented to the American Society of Criminology, Chicago.
- Thomas, C. and J. Williams. (1973) "Imprisonment as a Deterrent to Crime: A Reformulation of Chambliss' Typology of Deterrence". Paper presented to the American Society of Criminology, New York.
- Thomas, C. and J. Williams. (1974) The Deterrent Effect of Sanctions: A Selected Bibliography, Williamsburg: Metropolitan Criminal Justice Centre
- Thorsell, B.A. and L.W. Klemke. (1972) "The Labelling Process: Reinforcement and Deterrent?" Law and Society, 6:395-403.

- Thurrow, L. and C. Rappaport. (1969) "Law Enforcement and Cost-Benefit Analysis" Public Finance, 24.
- Thurstone, L.L. (1927), "Method of Paired Comparisons for Social Values". Journal of Abnormal and Social Psychology, 2:384-400.
- Timasheff, N.S. (1959), "Order, Causality, and Conjuncture", in L. Gross (ed), Symposium on Sociological Theory. New York: Harper and Row.
- Tittle, C.R. (1974), "A Book Review of Zimring and Hawkin's Deterrence: The Legal Threat in Crime Control. Chicago: University of Chicago Press. 1973". American Journal of Sociology, 79: 1547-1548.
- Tittle, C.R. (1978) "Comment on 'Deterrence: Theory versus Practice'" Criminology, 16:31-35.
- Tittle, C.R. (1969) "Crime and Deterrence". Paper presented to the American Sociology Association, San Francisco.
- Tittle, C.R. (1969) "Crime Rates and Legal Sanctions" Social Problems, 16:409-423.
- Tittle, C.R. (1975) "Deterrents of Labeling?" Social Forces, 53:399-410.
- Tittle, C.R. (1973) "Punishment and Deterrence of Deviance" in S. Rottenberg (ed), The Economics of Crime and Punishment, Washington D.C.: American Enterprise Institute for Policy Research, 85-102.
- Tittle, C.R. (1976) "Sanction Fear and the Maintenance of Social Order" Social Forces, 55:579-596.
- Tittle, C.R. and C.H. Logan. (1973) "Sanctions and Deviance: Evidence and Remaining Questions" Law and Society Review, 7:371-392. Also in S. Messinger *et. al.* (eds), (1974) The Aldine Crime and Justice Annual, 1973, Chicago: Aldine Publishing Co. 61-82.
- Tittle, C.R. and A.R. Rowe. (1978) "Arrest and Crime: More on the Deterrence Problem" in E.E. Flynn and J.P. Conrad (eds), The New and the Old Criminology, New York: Praeger, 85-95.
- Tittle, C.R. and A.R. Rowe. (1974) "Certainty of Arrest and Crime Rates: A further Test of the Deterrence Hypothesis" Social Forces, 52:455-462.

- Tittle, C.R. and A.R. Rowe. (1973) "Moral Appeal, Sanction Threat and Deviance: An Experimental Test" Social Problems, 20:488-498.
- Toby, J. (1975) "Deterrence Without Punishment" in General Deterrence: A conference on Current Research and Standpoints, June 2-5, 1975, Stockholm: The National Swedish Council for Crime Prevention, Sweden, Research and Development Division, 2:287-302.
- Toby, J. (1964), "Is Punishment Necessary?" Journal of Criminal Law, Criminology, and Police Sciences, 55: 332-337.
- Topping, C.W. d(1952), "The Death Penalty in Canada". The Annals of the American Academy of Political and Social Sciences, 284: 147-157.
- Tornudd, P. (1975) "Deterrence Research and the Needs of Legislative Planning" in General Deterrence: A Conference on Current Research and Standpoints. 2: 326-346.
- Tornudd, P. (1968), "The Preventive Effect of Fines for Drunkenness" in Scandanavian Studies in Criminology, 2:
- Trasler, G. (1962) The Explanation of Criminality. London: Routledge and Kegan Paul.
- Trilliing Linker, C. (1977) Homicide and Publicity: A View from the Deterrence Perspective. Ph.D. Dissertation, State University of New York at Albany.
- Tryon, R.C. (1955), Identification of Social Areas by Cluster Analysis. Berkeley: University of California Press.
- Tryon, R.C. (1967), "Predicting Group Differences in Cluster Analysis: The Social Area Problem". Multivariate Behavioural Research, 2: 453-475.
- Tullock, G. (1974), Does Punishment Deter Crime? 36: 103-111.
- Tullock, G. (1969), "An Economic Approach to Crime" Social Science Quarterly, 50: 59-71.
- Tullock, G. (1976), "The Economics of Crime: Punishment or Income Redistribution - Comment" Review of Social Economy, 34: 81-82.
- Turk, A.T. (1969), Criminality and Legal Order. Chicago: Rand McNally.

- Turkey, J.W. (1957), "Causation, Regression, and Path Analysis" in O. Kempthorne (ed) An Introduction to Genetic Statistics. New York: John Wiley and Sons, Inc. 270-307.
- Turner, S. (1969), "The Ecology of Delinquency" in T. Sellin and M.E. Wolfgang (eds), Delinquency: Selected Studies New York: John Wiley and Sons, Inc. 27-60.
- University of Pennsylvania Law Review Editors, (1968), "Comment. Police discretion and the judgment that a crime has been committed - rape in Philadelphia". University of Pennsylvania Law Review, 117: 277-323.
- University of Pennsylvania Law Review Editors, (1970), "The corroboration rule and crimes accompanying a rape". University of Pennsylvania Law Review, 118: 458-472.
- Upper, J.R. and J.H. White (1976), "An Experimental Study of General Deterrence: The Effect of Threatened Punishment on Potential Break and Enter Offenders" Ned T. Criminol, 18: 68-81.
- Urdang, L. and S.B. Blexner (1968), The Random House Dictionary of the English Language, College Edition. New York: Random House.
- U.S. Department of Transportation (1968), 1968 Alcohol and Highway Safety Report, Committee on Public Works, U.S. Government Printing Office.
- U.S. Department of Transportation (1974), Alcohol Safety Project - Evaluation of Operations, 1-3:
- Vandaele, W. (1973), "The Economics of Crime: An Econometric Investigation of Auto-Theft in the United States" in American Statistical Association, Proceedings of the Business and Economics Section 1973, American Statistical Association, Washington, D.C. Unannotated.
- Vandaele, W. (1978), "Participation in Illegitimate Activities: Ehrlich Revisited" in Blumstein, Cohen and Nagin (eds) Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, National Academy of Sciences, 270-335.
- Van Den Haag, E. (1968), "On Deterrence and the Death Penalty". Ethics, 78: 280-288.
- Van Den Haag, E. (1969), "On Deterrence and the Death Penalty". The Journal of Criminal Law, Criminology, and Police Science, 60: 141-147.

- Van Den Haag, E. (1970), "Deterrence and the Death Penalty: A Rejoinder". Ethics, 81: 74-75.
- Van Den Haag, E. (1975), "Deterrence, Deterrability and Effective Sanctions" in E. Van Den Haag and R. Martinson (eds) Crime Deterrence and Offender Career, City College of the City University of New York, New York. 1-99.
- Van Den Hagg, E. (1975), Punishing Criminals: Concerning a Very Old and Painful Question. Basic Books: New York.
- Van Den Haag, E. and R. Martinson (eds) (1975), Crime Deterrence and Offender Career. City College of the City University of New York, New York.
- Van Hofer, H. and H. Tham , "Beware of General Prevention" in 1.21, 257-270. Unannotated. (Insufficient interest).
- Van Rensselaar, H. (1958), "On Causation" in S. Hook (ed), Determinism and Freedom. New York: Collier Books.
- Van Vechten, C.C. (1942), "Differential Criminal Case Mortality in Selected Jurisdictions". American Sociological Review, 7: 833-839.
- Verdun-Jones, S.N. and A.J. Hatch. (1985) Plea Bargaining and Sentencing Guidelines. Prepared for the Canadian Sentencing Commission.
- Verdun-Jones, S.N. and F.D. Cousineau. (1979) "Cleansing the Augean Stables: A Critical Analysis of Recent Trends in the Plea Bargaining Debate in Canada". Osgoode Hall Law Journal. 17:227-259.
- Verdun-Jones, S.S., D. Cousineau, and A.J. Hatch. (1985) "The Impact of Plea Bargaining Upon the Implementation of Sentencing Reforms". Paper Presented at the American Society of Criminology. San Diego.
- Vermeul, P.K. and M.C.H. Nieuwenhuis-Oosterhof (1967), "A Socio-Criminological Study of the Effect of the Threat of Punishment on the Commission of Crimes". Mimeo, Groningen The Netherlands. Unannotated.
- Vidmar, N. (1973), "Retribution motives and other correlates of Canadian attitudes toward the death penalty". Unpublished Manuscript, Department of Psychology, University of Western Ontario. London, Ontario.

- Virtanen, K. (1970), "An Analysis of the Effect of the 1964 Law Amendment Designed to Provide More Effective Measures Against Car Thieves in Finland", unpublished M.S. Institute of Criminology, Helsinki, Finland.
- Vold, G.B. (1932), "Can the Death Penalty Prevent Crime?" The Prison Journal, 3-8.
- Vold, G.B. (1958) Theoretical Criminology. New York: Oxford University Press.
- Votey, Jr. H.L. and L. Phillips (1969), Economic Crimes: Their Generation, Deterrence and Control, Springfield Va: U.S. Clearinghouse for Federal Scientific and Technical Information. National Technical Information Service.
- Votey, Jr. H.L. and L. Phillips (1972), "Police Effectiveness and the Production Function for Law Enforcement" Journal of Legal Studies, 1: 423-436.
- Votey, Jr. H.L. and L. Phillips (1974) "The Control of Criminal Activity: An Economic Analysis" in D. Glaser (ed) Handbook of Criminology. Rand McNally, Chicago. 1055-1093.
- Walder, R. (1952), "Psychiatry and the Problem of Criminal Responsibility". University of Pennsylvania Law Review, 101: 378-386.
- Waldo, G.P. and T.G. Chiricos (1972) "Perceived Penal Sanction and Self-Reported Criminality: A Neglected Approach to Deterrence Research". Social Problems, 19: 522-540.
- Walker, N. (1971), Crimes, Courts and Figures: An Introduction to Criminal Statistics. Middlesex: Penguin Books.
- Walker, N. (1965), Crime and Punishment in Britain, The University Press, Edinburgh. 239-240.
- Walker, N. (1965), Crime and Punishment in Britain, The University Press, Edinburgh. 241-242.
- Walker, N. (1977), "Research and Sentencing Policy" Magistrate, 33: 7-9.
- Walker, N. (1972), Sentencing in a Rational Society, Pelican Books. Unannotated.
- Walker, N. (1979), "The Efficacy and Morality of Deterrents" The Criminal Law Review. 129-144.
- Walker, N. and M. Argyle (1964), "Does the Law Affect Moral Judgments?" British Journal of Criminology, 4: 570-581.

- Wallace, W.L. (1971) The Logic of Science in Sociology. New York: Aldine.
- Wallace, W.L. (ed) (1969), Sociological Theory: An Introduction. Chicago: Aldine.
- Wallerstein, J.S. and C.J. Wyle (1947), "Our Law-abiding Law-breakers". Probation, 25: 107-112.
- Walzer, N. (1972), "Economies of Scale and Municipal Police Services: The Illinois Experience" Review of Economics and Statistics. 431-438.
- Walzer, N. (1972), "Size of Operations and Cost of Police Protection: A Note" Economic and Business Bulletin, 24: 60-63.
- Washburne, N.F. (ed) (1962), Decisions, Values and Groups. New York: Pergamon Press.
- Wattenberg, W.W. and J. Balistrieri (1952) "Automobile Theft: A Favored Group Delinquency". The American Journal of Sociology, 57: 575-579.
- Weathersby, G.B. (1970), "The Determinants of Crime: An Economic Analysis of Major and Minor Crime in Boston". Address at the 38th Meeting of the Operations Research Society of America, Detroit. Unannotated.
- Webb, E.J. and D.T. Campbell, R.D Schwartz and L. Sechrest (1966), Unobtrusive Measures: Nonreactive Research in the Social Sciences. Chicago: Rand McNally.
- Wechsler, H. and J. Michael (1937), "Rational of the law of homicide". Columbia Law Review, 37: 701-761.
- Wellford, C.R. (1974), "Crime and the Police: A Multivariate Analysis" Criminology, 12: 195-213.
- Wellford, C.F. (1974) "A book review of Zimring and Hawkin's Deterrence: The Legal Threat in Crime Control> Chicago: University of Chicago Press. 1973". The Journal of Criminal Law and Criminologyd, 65: 117-122.
- Wellford, C.F. (1974) "Deterrence: Issues and Methodologies in the Analysis of the Impact of Legal Threat in Crime Control" The Journal of Criminal Law and Criminology, 65: 117-121
- Werts, C.E. and R.L. Linn (d1971), "Causal assumptions in various procedures for the least square analysis of categorical data". Psychological Bulletin, 75: 430-431.

- West, D.J. (1967), Murder Followed by Suicide. Cambridge: Harvard University Press.
- Westley, W.A. (1953) "Violence and the Police". The American Journal of Sociology, 49: 34-41.
- Westerley, W.A. (1970), Violence and the Police. Cambridge: The MIT Press.
- Wheeler, S. (1968) "Agents of delinquency control" in S. Wheeler (ed) Controlling Delinquency. New York: John Wiley and Sons, Inc. 31-60.
- Wheeler, S. (ed) (1968), Controlling Delinquency. New York: John Wiley and Sons, Inc.
- White, S. (1975) "Deterrence and Criminal Appeals: The Effect of the Criminal Appeal Act 1966" The Modern Law Review, 38: 369-396.
- White, W. (1933) Crime and Criminals. New York: Farrar and Rinehart.
- Whitla, D.K. (ed) (1968) Handbook of Measurement and Assessment in Behavioural Sciences. Reading: AddisonWesley Publishing Company, Inc.
- Wilkins, L.T. (1962) "Criminology, an operational research approach" in A.T. Welford (ed) Society: Problems and Methods of Study London: Routledge and Kegan Paul.
- Wilkins, L.T. (1960) Delinquent Generations. London: H.M. Stationery Office.
- Wilkins, L.T. (1969) Evaluation of Penal Measures. New York: Random House Press.
- Wilkins, L.T. (1965) "New thinking in criminal statistics" Journal of Criminal Law, Criminology, and Police Science, 26: 277-284.
- Wilkins, L. (1967) "Crime prevention and costs in national planning: A discussion of concepts and issues". International Review of Criminology Policy, 25: 21-27.
- Willcock, H.D. and J. Stokes (1968) Deterrents and Incentives to Crime Among Boys and Young Men Aged 15-21 Years. Office of Population Censuses and Surveys, Social Survey Division, H.M.S.O.

- Willcok, H.D., M. Durant and M. Thomas (1972) Crime, Criminals and the Law: A Study of Public Attitudes and Knowledge, Her Majesty's Stationary Office, London. Unannotated.
- Willer, D. and M. Webster, Jr. (1970) "Theoretical concepts and observables". American Sociological Review, 35: 748-757.
- William, K.R. (1978) Deterrence and Knowledge of Legal Punishment, Ph.D. Dissertation, University of Arizona.
- Williams, A.F. and L.S. Robertson (1974) The Fatal Crash Reduction Program, Insurance Institute for Highway Safety, Washington, D.C.
- Wilson, J.Q. (1972) "The problem of heroin". The Public Interest, 29: 3-28.
- Wilson, J.Q. (1968) Varities of Police Behavior: The Management of Law and Order in Eight Communities. Cambridge: Harvard University Press.
- Wilson, J.Q. and B. Boland (1976) "Crime" in W. Gorham and N.Glazer (eds) The Urban Predicament, The Urban Institute, Washington, D.C.
- Wilson, J.Q. and B. Boland (1978) "The Effect of the Police on Crime" Law and Society Review, 12: 367-390.
- Wilson, Q.C. (1968) "The police and the delinquents in two cities" in S. Wheeler (ed) Controlling Delinquents. New York: John Wiley and Sons, Inc. 9-30.
- Wolfgang, M. (1958) Patterns in Criminal Homicide. Philadelphia: University of Pennsylvania.
- Wolfgang, M.E. (1972) in House Subcommittee on the Judiciary: ('Hart-Celler Hearings).
- Wolfgang, M.E. (1963) "Uniform crime reports: A Critical Appraisal". University of Pennsylvania Law Review, III: 708-738.
- Wolfgang, M.E. and F. Ferracuti (1967) The Subculture of Violence: Toward an Integrated Theory in Criminology. New York: Tavistock Publications.
- Wolfgang, M.E., R.M. Figlio, and T. Sellin (1972) Delinquency in a Birth Cohort. Chicago: University of Chicago Press.
- Wolfgang, M.E., R.M. Figlio, and T. Selling (1972) Delinquency in a Birth Cohort. New York: Aldine.

- Wolfgang, M.E., A. Kelly, and H.C. Nolde (1962) "Comparison of the executed and the commuted among admissions to death row". Journal of Criminal Law, Criminology and Police Science, 53: 301-311.
- Wolfgang, M.E. and M. Riedel (1973) "Race, judicial discretion, and the death penalty". The Annals of the American Academy of Political and Social Science, 407:119-133.
- Wolosin, R.J., J. S. Steven, and A. Till (1973) "Effects of cooperation and competition on responsibility attribution after success and failure". Journal of Experimental Social Psychology, 9: 220-235.
- Wolpin, K.I. (1978) "An Economic Analysis of Crime and Punishment in England and Wales 1894-1967" Journal of Political Economy, 86: 815-840.
- Wolpin, K.I. (1978) "Capital Punishment and Homicide in England: A Summary of Results" American Economic Review: Papers and Proceedings, 68: 422-427.
- Wolpin, K.I. (1977) "Capital Punishment and Homicide: The English Experience" unpublished mimeo available from the Author.
- Woolf, H. (ed) (1961) Quantification: A History of the Meaning of Measurement in the Natural and Social Sciences. New York: Bobbs-Merrill Company.
- Wooton, B. (1963) Crime and the Criminal ' Law. London: The Stevens Books Company.
- (1972) Workshop on the Use of Sanctions in Controlling Behaviour on the Roads, Report of the Proceedings, University of Toronto, Centre of Criminology.
- Wright, J.D., P.H. Rossi, and K. Daly (1983) Under the Gun: Weapons, Crime, and Violence in America. New York: Aldine.
- Wright, S. (1925) "Corn and hog correlations". Department Bulletin No. 1300. Washington: Department of Agriculture.
- Wright, S. (1968) Evaluation and the Genetics of Population. Chicago: University of Chicago Press. 1:
- Wright, S. (1934) "The Method of Path Coefficients" The Annals of Mathematical Statistics, 5:161-215.
- Wright, S. (1960) "The treatment of reciprocal interaction, with or without lag, in path analysis". Biometrics, 16: 423-445.

- Wrightsmann, L.W. (1972) Social Psychology in the Seventies. Belmont: Brooks Cole Publishing Company.
- Yule, G. and M.C. Kendall (1950) An Introduction to the Theory of Statistics. London: Charles Griffen.
- Yunker, J.A. (1976) "Is the Death Penalty a Deterrent to Homicide? Some Time Series Evidence" Journal of Behavioral Economics, 5:
- Zador, P. (1976) "Statistical Evaluation of the Effectiveness of 'Alcohol Safety Action Project'" Accident Analysis and Prevention, 8:51-66.
- Zatz, M.S. and A.J. Lizotte (1983) The Timing of Court Processing: A Dynamic Model of Plea Bargaining, Mimeo.
- Zatz, M.S. (1984) "Race, Ethnicity, and Determinate Sentencing: A New Dimension of an Old Controversy", Criminology, 22: 147-171.
- Zeisel, H. (1976) "The Deterrent Effect of the Death Penalty: Fact v. Faiths" in P.B. Kurland (ed) The Supreme Court Review 1976, Chicago University Press, Chicago.
- Zetterberg, H.L. (1965) On Theory and Verification in Sociology. Third Edition. Totowa: Bedminster Press.
- Zimmerman, I. (1972) Punishment Without Crime. New York: MacFadden Bartell Corporation.
- Zimmerman, J. and H.H. Krauss (1971) "Source and Magnitude of Censure in Predictions of Unethical Behavior" Psychological Reports, 28: 727-732.
- Zimring, F.E. (1968) Bad Checks in Nebraska: A Study in Complex Threats, unpublished, Center for Studies in Criminal Justice at the University of Chicago.
- Zimring, F.E. (1975) "Abortion in Hawaii: A Study of Legal Change" in General Deterrence: A Conference on Current Research and Standpoints, June 2-4, 1975. The National Swedish Council for Crime Prevention, Sweden, Research and Development Division, Report No. 2: 229-251.
- Zimring, F.E. (1972) "Of Doctors, Deterrence, and the Dark Figure of Crime - A Note on Abortion in Hawaii" The University of Chicago Law Review, 39: 699-721.
- Zimring, F.E. (1971) Perspectives on Deterrence, National Institute of Mental Health, Public Health Service Publication 2056, Centre for Studies of Crime and Delinquency, Washington: U.S. Government Printing Office.

- Zimring, F.E. (1978) "Policy Experiments in General Deterrence, 1970-1975" in Blumstein, Cohen and Nagin (eds) Deterrence and Incapacitation: Estimating the Effects of Criminal Sanctions on Crime Rates, Washington: National Academy of Sciences, 140-173.
- Zimring, F.E. (1966) "Punishment Theory and Traffic Offenders", Unpublished Manuscript.
- Zimring, F. Studies in Deterrence, Recorded as Current Project P1371 by the Information Center, National Council on Crime and Delinquency.
- Zimring, F.E. (1974) "Threat of Punishment as an Instrument of Crime Control" Proceedings of the American Philosophical Society, 118: 231-234.
- Zimring, (F.?) Title Unknown. Article on various methodologies for evaluating deterrence policies.
- Zimring, F.E. and G. Hawkins (1968) "Deterrence and Marginal Groups" Journal of Research in Crime and Delinquency, 5:100-114.
- Zimring, F.E. and G.J. Hawkins (1973) Deterrence: The Legal Threat in Crime Control, The University of Chicago Press, Chicago.
- Zimring, F.E. and G. Hawkins (1971) "The Legal Threat as an Instrument of Social Change" Journal of Social Issues, 27: 33-48.
- Zimring, F.E. (1968) "Is Gun Control Likely to Reduce Violent Killings?" The University of Chicago Law Review, 35: 721-737.
- Zipin, P.M., R.H. Mabry and C.L. Dyer (1973) "Crime Rates and Public Expenditures for Police Protection: A Comment" Review of Social Economy, 3: 222-225.
- Hadden, J. K. and E. F. Borgatta. (1965) American Cities: Their Social Characteristics, Chicago: Rand McNally.
- Haddon, W. and Klein, D., (1965) "Assessing the Efficacy of Accident Countermeasures" Traffic Quarterly.
- Hagan, J. (1975) "The Social and Legal Construction of Criminal Justice: A Study of the Pre-sentencing process". Social Problems, 22: 20-37.

- Hagan, J.L. (1972) "The Labelling Perspective, the Delinquent, and the Police: A Review of the Literature." The Canadian Journal of Criminology and Corrections, 14: 150-165.
- Hagedorn, R. (1967) "A Cross-cultural assessment of official reactions to deviant behavior." Journal of Criminology, 7: 381-393.
- Haldane, L.H., D.H. Elliott, and P.C. Whitehead. (1972) "Particularism in the sentencing of Juvenile Delinquents." C.L. Boydell, C.F. Grindstaff, and P.C. Whitehead (eds) Deviant Behavior and Societal Reaction, 231-243. Toronto: Holt, Rinehart and Winston.
- Hall, J. (1945) "Criminology." in G.E. Gurvitch and H. Moore, (eds), Twentieth Century Sociology, New York: 360-365.
- Halloran, J.D. (1963) "Capital Punishment : Facts and Figures," in Mannes Tidmarsh, J.D. Halloran, K.J. Connolly, Capital Punishment, 41-105.
- Handy, R. and P. Kurtz, (1964) A Current Appraisal of the Behavioral Sciences, Great Barrington: Behavioral Research Council.
- Hann, R.G. (1976) "Deterrence and the Death Penalty: A Critical review Of the Research of Isaacs Ehrlich" Research Division of the Solicitor General of Canada, Ottawa, Ontario.
- Hann, R.G., (1972) "Decision-making in the Criminal Courts: a Simulation" Centre of Criminology, University of Toronto.
- Hannan, M.T., (1970) Problems of Aggregation and Disaggregation in Sociological Research, Chapel Hill: Institute for Research in Social Science, University Of North Carolina.
- Hannan, M.T., (1971) Aggregation and Disaggregation in Sociology, Lexington: D.C. Heath and Company.
- Hannan, T.H., (1974) "Criminal Behaviour and the Control of Crime: An Economic Perspective" Federal Reserve Philadelphia, 2-9.
- Harris, C. and S. Moitra (1978) "Improved Statistical Techniques for the Measurement of Recidivism" Journal of Research in Crime and Delinquency, 15: 194-213.
- Harris, J.R. (1970) "On the Economics of Law and Order" Journal of Political Economy. 78: 165-174.
- Harris, R. (1969) The Fear of Crime, New York: Praeger.

- Hart, H.L.A. (1957) "Murder and the Principles of Punishment: England and the United States" Northwestern University Law Review, 52: 446-447.
- Hart, H.L.A. (1961) The Concept of Law, London: The Oxford University Press.
- Hart, H.L.A. (1963) Law, Liberty, and Morality, Stanford: Stanford University Press.
- Hart, H.L.A. (1968) Punishment and Responsibility: Essays in the Philosophy of Law, New York: Clarendon Press.
- Hart, H.L.A. (1971) "Prolegomenon to the Principles of Punishment" in S.E. Grupp (ed) Theories of Punishment, Bloomington: Indiana University Press, 354-378.
- Hart, H.L.A. and A.M. Honore. (1959), Causation in the Law, Fair Lawn: Oxford Press.
- Hart, H. (ed) (1946) Punishment: For and Against, New York: Hart Publishing Company.
- Hartley, E., M. Rosenbaum, and A. Snadowsky. (1967) "Crime as seen by Psychotherapists" Police, 12: 77-80.
- Hatt, P. (1946) "The Concept of Natural Area" American Journal of Sociology, 11: 423-427.
- Havard, J.D.J. (1975) "Terrence: The problematic postulate" Australian and New Zealand Journal Of Criminology, 132-148.
- Hawkins, D. "Black and White Homicide Differentials: Alternatives to an InAdequate Theory" Criminal Justice and Behavior 10: 407-440.
- Hawkins, G. (1969) "Punishment and Deterrence: The Educative, Moralising and Habitutive Effects" The Wisconsin Law Review, 550-565.
- Hawkins, G. (1971) "Punishment and Deterrence: The Educative, Moralizing, and Habitutive" in S.E.Grupp (ed) Theories of Punishment, Bloomington: Indiana University Press.
- Hawkins, R.O. (1973) "Who called the cops? Decisions to Victimization" Law and Society Review, 7: 427-444.
- Hawley, A.H. (1950) Human Ecology, New York: The Ronald Press.
- Heider, F. (1958) The Psychology of Interpersonal Relations New York: John Wiley and Sons.

- Heineke, J.M. (1975) " A Note on Modelling the Criminal Choice Problem" Journal of Economic Theory, 10: 113-116.
- Heise, D.R. (1969) " Problems in Path Analysis and Casual Inference" in E.F. Borgatta (ed) Sociological Methodology, Jossey-Bass Publishers: 38-74.
- Heise, D.R. (1970) " Casual Inference from Panel Data" in E.F. Borgatta and G.W. Bohrnstedt(eds) Sociological Methodology, Jossey-Bass Publishers: 3-27.
- Heisler, G.H. (1972) An Experimental Investigation of Ways to Deter Deviants, Ph.D. Dissertation, Southern Illinois University.
- Heisler, G.H. (1974) "Ways to Deter Law Violators: Effects of Levels of Threat and Vicarious Punishment on Cheating" Journal of Consulting and Clinical Psychology, 42: 577-582.
- Henry, F. (1978) "Imprisonment as a General Deterrent" Criminal Law Quarterly, 21: 69-81.
- Henshel, R.L. (1972) " Deterrence and Knowledge of Sanctions" Paper presented to the Eastern Sociological Association, Boston, Massachusetts. Henshel, R.L. (1972) "Deterrence and Knowledge of Sanctions" in R.L. Akers and E. Sagarin (eds) Crime Prevention and Social Control, Praeger, New York: 51-64.
- Henshel, R.L. (1976) Racting to Social Problems, Longman Canada.
- Henshel, R.L. (1978) "Considerations on the Deterrence and System Capacity Models" Criminology, 16: 35-46.
- Henshel, R.L. and Carey, S.H. (1972) "Deviance, Deterrence, and Knowledge of Sanctions" Paper read at the Annual meeting of the Eastern Sociological Association, Boston,Massachusetts.
- Henshel, R.L. and Carey, S.H. (1975) " Deviance, Deterrence and Knowledge of Sanctions" in R.L. Henshel and R.A. Silverman (eds) Perception in Criminology, New York: Columbia University Press, 54-73.
- Henshel, R.L. and R.A. Silverman (1975) "Perception and Criminal Process". The Canadian Journal of Sociology, 1: 33-47.
- Henshel, R.L. and Silverman, R.A. (1975) Perception in Criminology, New York: Columbia University Press.

- Heumann, M. (1975) "A Note on Plea Bargaining and Case Pressure" Law and Society Review, 9: 515-528.
- Heumann, M. and C. Loftin (1979) "Mandatory Sentencing and the Abolition of Plea Bargaining: The Michigan Felony Firearm Statue". Law and Society Review, 13: 401-407.
- Hills, J.P. and Kochendorfer, R.A. (1969) "Knowledge of Peer Success and Risk of Detection as Determinants of Cheating" Developmental Psychology, 1:231-238.
- Hillinger, C. (1968) "A Generalization of the Principle of Casuality which makes it Applicable to Evolutionary Systems" Methodology and Science, 1: 143-147
- Hills, S.L. (1971) Crime, Power and Morality, Scranton: Chandler Publishing Company.
- Hirsch, W.Z. (1977) "Production, Cost, and Expenditure Determinant Functions of Police Services" in S.S. Nagel (ed) Modeling the Criminal Justice System, Beverly Hills, Sage Publications: 127-141.
- Hirschi, T. and H.C. Selvin (1967) Delinquency Research: an Appraisal of Analytic Methods, New York: The Free Press.
- Hobbes, T.. (1955) Leviathan, New York: Liberal Arts Press.
- Hodges, E.F. (1971) "Crime Prevention by the Indeterminant Sentence Law" American Journal of Psychiatry, 128: 291-295.
- Hoefnagels, G.P. (1966) "Others than Offenders"(mimeo) Nederlandse Economische Hogeschool, Faculteit der Rechtsgeleerdheid.
- Hoenack, S.A., Kurdle, R.T. and Sjoquist, D.L. (1978) "Some Difficulties in the Estimation of the Deterrent Effect of Capital Punishment" Policy Analysis.
- Hoffman, A. (1971) Steal This Book, New York: Pirate Editions.
- Hogarth, J. (1971) Sentencing as a Human Press, Toronto: University of Toronto Press.
- Hoiberg, E.O. and Cloyd, J.S. (1971) "Definition and Measurement of Continuous Variation in Ecological Analysis" American Sociological Review, 36: 65-74.
- Hollinger, R. and J. Clark (1983) "Deterrence in the Workplace: Perceived Certainty, Perceived Severity and Employee Theft" Social Forces 62: 398-418.

- Holtmann, A.G. and Yap, L. (1978) "Does Punishment Pay?" Public Finance, 33: 90-97.
- Homans, G. (1961) Social Behavior: Its Elementary Forms, New York: Harcourt.
- Honderich, T. (1969) The Supposed Justifications, London Hutchison and Company.
- Hood, R. and R. Sparks (1970) Key Issues in Criminology, World University Library. New York: McGraw-Hill.
- Hook, S. (ed) (1959) Determinism and Freedom, New York: Collier Books.
- Horton, P.B. (1973) "Problems in Understanding Criminal Motives" in S.Rottenberg (ed) The Economics of Crime and Punishment, American Enterprise Institute for Public Policy Research, Washington, D.C.
- Horton, P.B. and Hunt, C.L. (1964) Sociology, Toronto: McGraw-Hill Company.
- Horton, P.B. and Leslie, R. (1965) The Sociology of Social Problems, New York: Appleton Century-Crofts.
- Hume, D. (1740) A Treatise on Human Nature, Edited by L.A. Shelby-Bigge, Oxford: Clarendon Press, 1888.
- Hume, D. (1874) A Treatise on Human Nature, London: Longhams, Green, and Company.
- Hume, D. (1955) Enquiry Concerning Human Understanding, New York: Liberal Arts Press.
- Hume, D. (1964) A Treatise On Human Nature, New York: Doubleday.
- Huff, C.R. and J.M. Slaturn (1980) "Police Employment and Suburban Crime" Criminology 17: 461-470.
- Hyman, H.H. (1955) Survey Design and Analysis, New York: The Free Press.

